



The **Philippine**  
**Men & Women**  
of Science

A compilation of bio-bibliographical information on men and women in the field of science and technology.

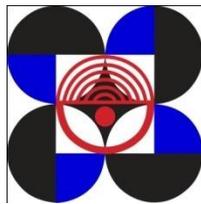
Volume XXIX

# **Philippine Men and Women of Science**

**(Formerly Philippine Men of Science)**

**Volume 29**

**December 2014**



**Information Resources and Analysis Division  
Science and Technology Information Institute  
Department of Science and Technology  
Bicutan, Taguig City, Philippines  
Tel. no. 8372191 to 95**

The PHILIPPINE MEN AND WOMEN OF SCIENCE Volume 29, December 2013 issue is published by the Science and Technology Information Institute – Department of Science and Technology (STII-DOST), General Santos Ave., Bicutan, Taguig City, Philippines.

### **Production Team**

**Raymund E. Liboro**, Assistant Secretary and Officer-in-Charge

**Rosie A. Almocera**, Chief, Information Resources and Analysis Division (IRAD)

**Geraldine B. Ducusin**, Supervising Science Research Specialist

**Josefina A. Mahinay**, Science Research Specialist II (Scientist Database Manager)

**Marievic V. Narquita**, Science Research Specialist II

**Robelyn M. Cruz**, Science Research Specialist II (IT Support Staff)

**Arjay C. Escondo**, Science Research Specialist I

**Jeffrey T. Centeno**, Document specialist

Production Date:

This online publication is produced by STII-DOST. The content is free for use by the public for education and research purposes, but not for commercial profit. Attribution to the STII-DOST as the publisher is required at all times.

### **Disclaimer:**

STII waives responsibility from any adverse effect that may result from the inappropriate use of this content.

# Preface

The Philippine Men and Women of Science (PMWS) is a semi-annual online publication of the Science and Technology Institute (STII). It was first published in 1964 as the Philippine Men of Science (PMS), containing 101 scientists.

In 2001, the STII developed the systems, the SciNET-PHIL Integrated Library Management System (SILMS) and WebDB (which consist of five databases). One of the five databases is the Scientist Database which efficiently processes and makes the PMS data available to the public. Thus, PMS was accessible online through SILMS and WebDB.

On August 28, 2012, PMS Volume 24, June 2012 issue was uploaded to make it more visible and accessible to more users. A download counter was also installed to monitor usage. STII has unofficially (document change only; official registration in progress) changed PMS to Philippine Men and Women of Science (PMWS) in its online display in response to a more gender-sensitive title of the publication. PMWS was adopted online on July 05, 2013 (Volume 26, June 2013 issue). PMWS is now accessible in two additional sites, [www.science.ph](http://www.science.ph) and [www.stii.dost.gov.ph](http://www.stii.dost.gov.ph).

The publication is a good resource material for researchers who need information on the scientists' academic background and professional contributions and affiliations.

STII is grateful for the valuable support of the scientists who contributed information to this volume, as well as other organizations, such as the National Academy of Science and Technology (NAST), National Research Council of the Philippines (NRCP) and the University of the Philippines.

We hope that our current users will pass on the information on the existence of this kind of online publication. It is our hope that more Filipinos will benefit from this information about our scientists' contribution to the national development.

# Table of Contents

<b>Alipon, Marina A.</b>	1-8
<b>Almoro, Percival F.</b>	9-16
<b>Banzon, Ronald S.</b>	17-20
<b>Batac, Rene C.</b>	21-24
<b>Bo-ot, Luis Maria T.</b>	25-28
<b>Bundoc, Rafael Cruz</b>	29-32
<b>Cruz, Rolando T.</b>	33-54
<b>Diesmos, Arvin C.</b>	55-76
<b>Escobin, Ramiro P.</b>	77-88
<b>Esguerra, Jose Perico</b>	89-99
<b>Galapon, Eric Alvarez</b>	100-106
<b>Garcia, Wilson O.</b>	107-119
<b>Hermosa, Nathaniel P.</b>	120-123
<b>Mari, Erlinda L.</b>	124-128
<b>Navasero, Marcela M.</b>	129-135
<b>Navasero, Mario V.</b>	136-150
<b>Paraan, Francis Norman C.</b>	151-152
<b>Prudente, Maricar S.</b>	153-161
<b>Ramos, Henry J.</b>	162-180
<b>Villagonzalo, Cristine de los reyes</b>	181-183

**Name** Marina A. Alipon  
**Date of Birth** July 18, 1957  
**Gender** Female  
**Civil Status** Married  
**Home Address** 7355 San Antonio, Los Baños, Laguna  
**Education**

PhD Wood Science and Technology, University of the Philippines, College of Forestry,  
Department of Science and Technology, Manila Philippines 1998

#### **Association Membership**

Member, International Conference on Forestry Education and Research for Asia-Pacific Region

Chairman, MFCC Community Involvement Committee

Board of Directors, Makiling Forestry Credit Cooperative (MFCC)

Chairman, Working Committee- International Conference on Tropical Forest and Climate Change

Coordinator of Conference, International Conference on Coconut Wood Utilization

Member, FPRDI Human Resource & Development Committee

Member, Working Committee- International Conference on Tropical Forest and Climate Change

Research Chair Holder, FPRDI

Chairman, Ministry of Ecology, Parish Pastoral Council

President, Catholic Women's League (CWL), Vicariate of Immaculate Conception

Member, FPRDI Project Development and Monitoring Committee

Board of Directors, FPRDI Employees Association

President, Kabataang Barangay

Co-Chairman, FPRDI Research Chair Holder Award Committee

Member, FPRDI Scientific Career Evaluation Committee

Member, Executive Committee (EXECOM)

Member, Project Development, Evaluation and Monitoring Committee (PDEMC)

Vice Chair Registration Committee, Laguna Lake Development Authority

Vice President, Philippine Association of Career Scientists

Member, Program and Invitation Committee, International Conference on Forestry Education and Research for As

Member, FPRDI

#### **Honors / Awards**

Best poster presentation, University Sains Malaysia and Japana International Research

Center of Agricultural Sciences (USM-JIR 2003

Plantation for Quality Poles and Shoots which won 3rd place, Agriculture and Natural Resource November 9, 2007

Finalist, 2008 National Invention Contest 17-21 Nov. 2008

First Place, 21st Regional Symposium on Research and Development Highlights and Technology Investment Forum. Cavi August 20-21, 2008

Outstanding Institutional Service Award, UPLB College of Forestry and Natural Resources Outstanding Alumni Award October 9, 2009

Qualifier, 8th Regional and National S & T Fora and Competition in Industry and Energy Research and Development January 29, 2010

1st Place (Regional Award), 8th Regional and National S & T Fora and Competition in Industry and Energy Research and Development Feb. 25, 2010

3rd Place, 8th Regional and National S & T Fora and Competition in Industry Energy Research and Development March 17, 2010

Wiiner of the Utility Model Category, Southern Luzon Cluster Invention Contests and Exhibits Sep. 6-8 2010

Best Technical Seminar Paper Award, FPRDI, College, Laguna Borden International Incorporated July 1986

Model Employee- Technical Personnel Category for Exemplary and Outstanding Accomplishments, FPRDI, College, Laguna Dec. 14, 2001

2002-2003 FPRDI Research Chair Holder Award, Forest Products Research Foundation Inc. May 2003

Third Place (Outstanding Creative Research), Technology Application and Promotions Institute (DOST-TAPI) Nov. 21-25, 2002

First Place FPRDI Poster Competition "Development of glue laminated bamboo and bamboo-wood combinati, FPRDI, College, Laguna July 4 2003

F.O. Tesoro Technology Transfer Award, LBSCFI, SEARCA Auditorium July 2006

LBSCFI Outstanding R & D Award, F. O. Tesoro Technology Award, Umali Auditorium, SEARCA, Los Baños, Laguna July 24, 2009

Best Technical Paper, FPRDI Anniversary Celebration July 10, 2009

Outstanding technical Poster Award, FPRDI Technical Poster Competition July 4, 2008

2nd Place, National Invention Contest for the entry "Digital Wood Moisture Meter (FA507) Calibrated to Philippi Nov. 28, 2010

2011-2012 FPRDI Research Chair Holder Award, 55th FPRDI Anniversary

2013 Dost International Publication Award, DOST Dec. 12, 2013

2008 Outstanding UPLB-CFNR Alumni-Institutional Service Award, 99th UPLB-CFNR Foundation Day at UPLBCF July 10, 2009

First Place, Poster Competition, FPRDI Anniversary Celebration, FPRDI, College, LAGuna July 10, 2009

3rd prize for their paper Development and Commercialization of Locally Designed Digital

Wood Moistur, 8th Regional and National S & T Fora and Competition in Industry and Energy Research and Development March 17, 2010

### Papers Presented

(2013). Various Adhesives on Engineered Bamboo, 2013 International Conference on Wood Adhesives.

(2013). Performance Evaluation of Various Adhesives on Engineered Bamboo, International Conference on Wood Adhesives.

(2013). Digital Moisture Meter, 5th Fajr International Inventions and Innovations Exhibitions.

Elvina O. Bondad (2012). Sorption Characteristics of Bamboo, Rattan and Vince, 79th General Membership Assembly and Policy and Scientific Forum held at Hotel Sofitel Philippine Plaza Manila, CPP Complex, Roxas Boulevard, Pasay City.

E.O. Bondad, G.N. Sapin and A.B. Exconde (2011). Comparative Physical and Mechanical Properties of giant Bamboo [*Dendrocalamus asper* (Schultes f) Backer ex Heyne] from Malaybalay, Bukidnon (Region X) and Mt. Makiling (Region IV), 60th Annual Convention, Global Networking to Meet Global Challenges of the Philippine Association for The Advancement of Science (PhilAAS). World Conference of Science and Technology ..

Elvina O. Bondad (2011). Comparative Strength and Related Properties of yemane (*Gmelina arborea* Roxb.) Coppice and Planted Stand. In Program on Convention theme: Sustainable Development and the Role of the Forest Products Industry., 65th International Convention.

Elvina O. Bondad (2011). Comparative Physical and Mechanical Properties of giant bamboo [*Dendrocalamus asper* (Schultes f.) Backer ex Heyne], 60th Annual Convention, Global Networking to Meet Global Challenge of the Philippine Association for the Advancement of Science (PhilAAS). World Conference of Science and Technology.

(2011). Comparative Strength and Related Properties of yemane (*Gmelina arborea* Roxb.) Coppice and Planted Stand. Subprogram: Sustainable Utilization of Tropical Hardwoods. Technical Session Abstract page, 65th International Convention: Sustainable Development and the Role of the Forest Products Industry. Portlan, Oregon USA.

E.D. Bauza and G.B. Sapin (2010). Development of Floor tiles from Philippine Bamboos, Wood Adhesives Conference held on Sept 24-27 Nevada USA.

Malab S., C. Batin, B. Malab and D. Midmore (2010). POPEYE Kawayan Technology, PACS Symposium.

Eusebio, G. A. and G.B. (2010). Dolotina Situational Analysis of Bohol Province for the Development of Moisture meter for Bamboo and Other Non-timber Species, FPRDI Library.

E.O. Bondad and M.s. Moran (2009). Effect of Silvicultural Management on the Basic Properties of Bamboo, ACIAR Silvicultural Management of Bamboo in the Philippines and Australia for shoots and Timber.

E.O. Bondad and M.S. Moran (2009). Effect of Silvicultural Management on the Basic Properties of Bamboo, ACIAR Symposium on Silvicultural Management of Bamboo in the Philippines and Australia for Shoots and Timber.

E.O. Bondad and M.S. Moran (2009). Effect of Silvicultural Management on the Basic Properties of Bamboo, ACIAR Symposium on Silvicultural Management of Bamboo in the Philippines and Australia for shoots and Timber.

Edna D. Bauza and Gil B. Sapin (2009). Development of Floor Tiles from Philippine Bamboo, International Conference on Wood Adhesives.

(2008). Frequently Asked Questions on FPRDI Digital Wood Moisture Meter, FPRDI.

(2008). Sorption Characteristics of Bamboo, Rattan and Vines, NRCP Annual Report.

(2008). Basic Properties of Timber and Other Non-Timber Forest Products (Module 1), Identification of pests and Diseases on Wood and Non-wood Forest Products.

G.B. Dolotina, G. Guba, G. Eusebio and A. Rectamac (2008). Development and Commercialization of Locally Designed Digital Wood Moisture Meter, FPRDI Poster Competition and STARRDEC Poster and Paper Competition.

E. Bauza and G. Sapin (2008). Development of Floor Tiles from Philippine Bamboo, FPRDI Poster Competition.

Malab, S.M., C.B. Batin, B.M. Malab, and D.J. Midmore (2007). Improving Productivity of a Previously Unmanaged Kawayan Tinik (*Bambusa blumeana* Shultes) Plantation for Poles and Shoots in Ilocos Norte, ACIAR Silvicultural Management of Bamboo in Philippines and Australia for Shoots and Timber.

(2007). Effect of Species and Needle Electrodes, FPRDI.

D.M. Midmore, E.O. Bondad and S. Moran (2007). Effect of Silvicultural Management on Basic Properties of Bamboo, 29th NAST Annual Scientific Meeting.

E.O. Bondad and Ma. S. Moran (2007). Silvicultural Treatments for Quality Poles, CLSU Training Center, Central Luzon State University, Science City, Muñoz, Nueva Ecija.

E.O. Bondad and Ma. S. Moran (2007). Silvicultural Treatments for Quality Poles, FPRDI Technical Poster Competition.

E.O. Bondad and M. S. Moran (2007). Effect of Silvicultural Management on Pole Quality, PCARRD Los Baños, Laguna.

Malab, S.M., C.B. Batin, B.M. Malab and D.J. Midmore (2007). Improving Productivity of a Previously Unmanaged Kawayan Tinik (*Bambusa blumeana* Shultes), Plantation for Poles and Shoots in Ilocos Norte, the Philippines. Symposium on Management of Bamboo in Philippine and Australia for shoots and timber..

S.C. Malab, E.O. Bondad and P.C. Cayabyab (2006). Physical Properties of silviculturally treated kauayan tinik., IN: Trends and Innovations in the bamboo industry.

M.M. Fidel and E.O. Bondad (2006). Bonding Strength Evaluation of Modified Commercial Glue on Laminated Bamboo and Bamboo- Wood Combination, 2005 Wood Adhesive Conference. San Diego, California. USDA, FPL, Madison, USA.

E.O. Bondad and S. Malab (2006). Giant Bamboo for Housing and Construction, DOST-SCS and PAC'S Symposium in observance of the Science and Technology Week.

S.C. Malab, E.O. Bondad and P.C. Cayabyab (2006). Physical properties of silviculturally treated kauayan tinik, Trends and Innovations in the Bamboo Industry.

M.M. Fidel and E.O. Bondad and P.C. Cayabyab (2006). Bonding Strength Evaluation of Modified Commercial Glue on Laminated Bamboo and Bamboo-Wood Combination, Wood Adhesive Conference. Sandiego, California. USDA, FPL, Madison, USA.

M.M. Fidel and E.O. Bondad (2005). Bonding Strength Evaluation of Modified Commercial Glues on Bamboo and Bamboo-Wood Combination, Conference on Wood Adhesives.

E.O. Bondad and Pedro Cayabyab (2005). Glue Laminated Bamboo and Bamboo Wood

Combination, FPRDI Anniversary.

Natividad. R. A., P. L. Alcachupas (2005). Wood Quality Evaluation of Teak and Mahogany Thinnings, FPRDI Library. (Contract Research) of Ipil-ipil (*Leucaena leucocephala*). FPRDI Library.

M.M. Fidel and E.O Bondad (2005). Bonding Strength Evaluation of Modified Commercial Glues on Bamboo and Bamboo-Wood Combination, Wood Adhesives at the Holiday Inn on the Bay, Harbor Drive, Sandiego, California, USA.

P.L. Alcachupas and E.O. Bondad (2004). Lumber Recovery and Grade of *A. mangium* at various ages, 3rd USM-JIRCAS International Symposium on "Lignocellulose.

(2004). *Bambusa blumeana*, 3rd International Symposium on Surfacing and Finishing of Wood.

M.M. Fidel, Z.B. Espiloy and P.C. Cayabyab (2004). Development of glue laminate bamboo and bamboo-wood combination, 3rd USM-JIRCAS International Symposium on "Lignocellulose".

E.O Bondad and S.Malab (2004). Effect of Silvicultural Treatments on Bamboo's, 4th National Bamboo Congress. University of Northern Philippines, Vigan City, Ilocos Sur.

(2004). Yemane Coppice, DOST-SCS and PAC's Symposium.

Eusebio G.A., G.B. Dolotina and F.O. Tesoro (2004). Industrial Application of FPRDI Moisture Meter, FPRDI Library, College, Laguna.

P.L. Alcachupas and E.O. Bondad (2004). Lumber Recovery and Grades of *A. mangium* at various ages, 3rd USM-JIRCaS international Symposium on "Lignocellulose".

(2004). *Bambusa blumeana* in Relation to its Finishing Performan, 3rd International Symposium on Surfacing and Finishing of Wood.

E.O Bondad (2003). Interrelationship of Shrinkage and Seasoning in Philippine Timbers, FPRDI Poster Competition. FPRDI Anniversary.FPRDI, College, Laguna..

Eusebio G.A, G.B. Dolotina and M.M. Quiambao (2002). Situational Analysis of Region III for the Piloting of the FPRDI wood Moisture Meter, FPRDI Library, College, Laguna.

G.B. Dolotina, G. Guba and G. Eusebio (20 July 2007). FPRDI-ASTI Digital Moisture Meter, CLSU Training Center, Central Luzon State University, Science City, Muñoz, Nueva Ecija.

A.R. Floresca and P.C. Cayabyab (1999). Strength and Grading of Structural Sizes of Lumber, FPRDI Library, College, Laguna.

Villavelez, L. (1999). Suitability of Adventitious Roots of Climbing Pandan (*Freyunetia* spp.) for Furniture, Gandicraft and Packaging, FPRDI Library. College, Laguna.

Bello, E.D. and Z.B. Espiloy (1996). New Panel Products and Application of Bamboo, First National Conference on Bamboo.

Mari, E.L. and P.C. Cayabyab (1996). Investigation on the Effects of Humidity on Composite Construction Materials, FPRDI Library, College, Laguna.

A.R. Floresca (1996). Physical and Mechanical Properties of Lesser-Used Species, ITTO Project-submitted to Engr. A. Mosteiro.

Bello, E.D., Z.B. Espiloy (1996). New Panel Products and Application of Bamboo, First National Conference on Bamboo. Iloilo City.

(1995). Sorption Characteristics of Bagras (*Eucalyptus deplugta* Blume), International Union of Forestry Research Organization (IUFRO) World Congress. Tampere, Finland..

(1995). Physical Properties of Bagras (*Eucalyptus deglupta* Blume) for Quality Improvement of Its End-Products, International Union of Forestry Research Organization (IUFRO) all Division 5 Conference held in Pullman, Washington, USA.

A. Geissen (1995). Electrical Properties of bagras (*Eucalyptus deglupta* Blume)., FPRDI Library, College, Laguna.

(1995). Sorption Characteristics of Bagras (*Eucalyptus deglupta* Blume), International Union of Forestry Research Organization (IUFRO) World Congress, Tampere, Finland.

(1995). Physical Properties of Bagras (*Eucalyptus deglupta* Blume) for Quality Improvement of Its End-Products, International Union of Forestry Research Organization (IUFRO) all Division 5 Conference held in Pullman, Washington, USA.

(1992). Assessing the Utilization of yemane (*Gmelina arborea* Roxb.) for Paper Pulp or Lumber Manufacture, 15th Biennial Conference of the Institute of Foresters of Australia held in Queensland, Australia.

(1992). Assessing the Utilization of yemane (*Gmelina arborea* Roxb.) for Paper Pulp or Lumber Manufacture, 15th Biennial Conference on the Institute of Foresters of Australia held in Queenslan, Australia.

(1991). Strength Evaluation of Timber in the Philippines, 2nd Technical Group Meeting on "Strength Evaluation of Timber" Kuala Lumpur, Malaysia.

(1991). Strength Evaluation of Timber in the Philippines, 2nd Technical Group Meeting on "Strength Evaluation of Timber" Kuala Lumpur, Malaysia.

Rico J. Cabangon, Cristina C.B. Candelaria and Nathaniel A. Ramos (). Generation of Technical Basis for the Development of Standards for Engineered Bamboo Products, PCARRD-DOST-GIA.

E.O. Bondad and Ma. S. Moran (). Silvicultural Treatments for Quality Poles, 29th Anual Scientific Meeting of the Academy of Science and Technology.

(). Effect of Age on the Utilization of yemane (*Gmelina arborea* Roxb.) for House Construction., FPRDI, College, Laguna.

## **Publications**

- 2013 Rico J. Cabangon Generation of Technical Basis for the Development of Standards for Engineered Bamboo (E-Bamboo). *Philippine Journal of Science*, 2013.
- 2012 Dwight A. Eusebio and Francisco G. Lapitan Physical and Mechanical Properties of *Eucalyptus citriodora*, *Eucalyptus Urophylla* and *Alstonia macrophylla*. *Philippine Forest Products Journal*, 2012.
- 2012 Ramon A. Razal, Priscila C. Dolom, Aresna B. Palacpac, Ma. Magdalena B. Villanueva, Sofronio C. Camacho, Rosario B. Bantayan and Stanley C. Malab Mainstreaming Engineered Bamboo Products for Construction and Furniture. *Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCAARRD) Los Baños, Laguna and Forestry Development Center University of the Philippines, College of Forestry and Natural Resources, Los Baños Laguna*, 2012.
- 2011 Edna B. Bauza and Gilberto N. Sapin Development of Floor Tiles from Philippines Bamboos. *Philippine Journal of Science* 140, 2011.

- 2011 Elvina O. Bondad Comparative Properties Evaluation of yemane (*Gmelina arborea* Roxb.) Coppice and Planted Stand. *Philippine Journal of Science*, 2011.
- 2011 Elvina O. Bondad Physical and Mechanical Properties of *Eucalyptus camaldulensis* Dehnh. *FPRDI Journal*, 2011.
- 2011 Gil B. Dolotina Effect of Species on the Accuracy of FPRDI Wood Moisture Meter. *Philippine Forest Products Journal*, 2011.
- 2011 E.O. Bondad, G.N. Sapin and A.B. Exconde Comparative Physical and Mechanical Properties of giant bambbo [*Dendrocalamus asper* (Schultes f.) Backer ex Heyne] from Malaybalay, Bukidnon (Region X) and Mt. Makiling (Region IV).. *Philippine Forest Products Journal*, 2011.
- 2011 Grecelda A. Eusebio and Gil B. Dolotina Situational Analysis of Puerto Princesa City, Palawan for the Development of Moisture meter for Bamboo and other Non-timber Forest Products. *FPRDI Library*, 2011.
- 2010 E.O. Bondad Physical and Mechanical Properties Giant ipil-ipil [*Leucaena leucocephala* (Lam.) de Wit].. *FPRDI Journal*, 2010.
- 2010 Interrelationship of Wood Quality Indicators and Bending Properties of Benguet pine (*Pinus kesiya* Royle ex Gordon. *FPRDI Journal*, 2010.
- 2009 G.B. Dolotina, G.A. Eusebio, G.P. Guba and A.E. Rectamar Digital Wood Moisture Meter Calibrated to Philippine Wood Species. *Intellectual Property Office*, 2009.
- 2008 E.O. Bondad Strength Grouping of Philippine Timber for Various Uses. *FPRDI Trade Bulletin*, 2008.
- 2007 Elvina O. Bondad Physical and Mechanical Properties of Big Leafed Mahogany (*Swietenia macrophylla* King) and Malapapaya [*Polyscias nodosa* (Blume) Seem.]. *FPRDI Journal*, 2007.
- 2007 Elvina O. Bondad Physical and Mechanical Properties of Big-leafed Mahogany (*Swietenia macrophylla* King) and teak (*Tectona grandis* L.f.) Thinnings. *FPRDI Journal*, 2007.
- 2007 Espiloy, Z.B., F. D. Virtucio, C.A. Roxas, E.O. Bondad and C.D. Apolinar Abstracts on Philippine Bamboos. *FPRDI and ERDB*, 2007.
- 2007 Espiloy, Z.B. and E.O. Bondad Utilization of Commercial Bamboos. In *Monograph on Production and Utilization of Philippine Bamboos*. *FPRDI , College of Laguna*, 2007.
- 2007 Effect if Species and Needle Electrode on the Accuracy of FPRDI Low-cost Moisture meter. *FPRDI Annual Report*, 2007.
- 2006 E.O. Bondad Physical and Mechanical Properties of Mahogany (*Swietenia macrophylla*) and malapapaya (*Polyscias nobosa*). *FPRDI Journal*, 2006.
- 2006 E.O. Bondad Strength and Related Properties of *Eucalyptus camaldulensis* Dehn.. *FPRDI Journal*, 2006.
- 2006 Virtucio F.D. and N.K. Torreta Furniture and Handicraft Strategy Plant. *NAST - PCARRD*, 2006.
- 2006 How Production Affects the Quality of Bamboo Poles.. *FPRDI College Laguna*, 2006.
- 2005 Magcale D.B. and M.E. Delgado Wood Density of Tropical Tree Species in the Philippines. *State of the knowledge and Data Base Debelopment for Tree Biomass*

- Estimation.. *Journal of Tropical Forest Science* 17, 2005.
- 2005 E.O. Bondad and P.C. Cayabyab Relative density of the Philippine Woods. *FPRDI Trade Bulletin Series*, 2005.
- 2003 P.L. Alcachupas & E.O. Bondad. Properties, Lumber Recovery & Grades of *A. mangium* at Various Ages. *Journal of Tropical Forest Science* 9, 2003.
- 2002 F.B. Tamolang and P.C. Cayabyab Strength and related Properties of kamatog [*Sympetalandra densiflora* (elmer)v.Steen.] and kaatoan bangkal [*Anthocephalus chinensis* (lamk.) Rich. ex Walp]. *FPRDI Journal*, 2002.
- 2002 Forest Products Research and Development Institute (FPRDI). Electrical Resistance Wood Moisture Meter Analog type, 2002.
- 1999 J. Tamayo Interrelationship Among Relative Density, Shrinkage and Drying of Philippine Timber. *FPRDI Journal*, 1999.
- 1998 F.B. Tamolang and A.R. Floresca Shrinkage Characteristics of Timber for Use Requiring Dimensional Stability. *FPRDI Trade Bulletin*, 1998.
- 1995 M.M. Maruzzo Tension Wood and its Effects on End-Use Properties of Wood. *FPRDI Journal*, 1995.
- 1994 F.B. Tamolang and Z.L. Cabral Physical and Mechanical Properties of Some Lesser Known Species (LKS) and Their Possible Uses. *The Philippine Lumberman*, 1994.
- 1993 Relative Density and Shrinkage of Yemane (*Gmelina arborea* Roxb) Different Ages and Height levels. *FPRDI Journal*, 1993.
- 1992 Assessing the Utilization of Yemane (*Gmelina arborea* Roxb.) for Paper Pulp or Lumber Manufacture. *PTEROCARPUS*, 1992.
- 1991 A.R. Floresca Physical and Mechanical Properties of Bagras (*Eucalyptus deglupta* Blume from Paper industries Corporation of the Philippines. *FPRDI Journal*, 1991.
- 1991 A.R. Floresca Strength and Related Properties of Some Species Under Genus *Acacia*. *FPRDI Journal*, 1991.
- 1990 Espiloy, Z.B., M.M. Maruzzo and M. Dionglay Properties of Green and Yellow Varieties of Coconut (*cocos nucifera* L.). *FPRDI Journal*, 1990.
- 1989 Tomolang, F.B. Assessment of End-Use Characteristics of Moluccan sau [*albizia falcataria* (L.) Fosb.]. *The Philippine Lumberman*, 1989.
- 1989 Tamolang, F.B. and Z.L. Cabral Mechanical and Related Properties of Lesser Known Species (LKS). *The Philippine Lumberman*, 1989.
- 1989 Tamolang, F.B. and E.B. Espiloy Mechanical and Related Properties of Gatasan (*Garcinia* Sp). *The Philippine Lumberman*, 1989.
- 1989 Espiloy, Z.B., M.M. Maruzzo and M. Dionglay Properties of Some Philippine Palms. *FPRDI Journal*, 1989.
- 1986 Sabagan, F.B. Mechanical and Related Properties of Ilang-ilang [*Camanga odorata* (Lam.) de Wit.]. *The Philippine Lumberman* XXX II, 1986.
- G.B. Dolotina, Gerwin P. Guba and Alvin E. Retamar Development and Commercialization of a Locally Designed Digital Moisture Meter for Bamboo and Other Non Timber Forest Products. *TECHNICOM-PCIERD-DOST-GIA*, .

**Name** Percival F. Almoró

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Associate Professor III, University of the Philippines, Quezon City, Philippines

**Education**

Postdoctoral fellowships, Center for Optical Res. and Educ., Univ. of Utsunomiya, Hitachi Fellow, Japan 2014

Postdoctoral fellowships, DTU-Fotonik, Danmarks Tekniske Universitet, Denmark 2009

Postdoctoral fellowships, Institut für Technische Optik, Universität Stuttgart, Germany 2006

Ph.D. Physics, University of the Philippines, Quezon City, Philippines 2004

**Fields of Specialization**

Optics & Optoelectronics

Photonics

Optics

Lasers

Coherent Metrology

Holography

Speckle Interferometry

Phase Retrieval

Nondestructive Testing

Fringe Processing

**Employment**

Associate Professor III, National Institute of Physics (NIP), 2000-present

**Honors / Awards**

U.P. Scientist I, U.P. Scientific Productivity System 2012-2014

Grand Winner, National Academy of Science and Technology – Dep't. of Science and Technology (NASTDOST) – DuP 2005

Awardee, DOST-Phil. Council for Advanced Science and Technology Research and Development 2005

Best Ph.D. Dissertation, DOST-Phil. Council for Advanced Science and Technology Research and Development 2005

Awardee, First U.P. System Advanced Technology Award 2005

Awardee, Gawad Tsanselor 2005

**Papers Presented**

Esmerando Escoto, Joselito Muldera, Lean Dasallas, Elmer Estacio (2013). Coherence length measurement for ultra-short laser pulses using digital holography and statistical fringe analysis, 7th International Workshop on Advanced Optical Imaging and Metrology, Springer, Nuertingen, Germany.

Abregana, TJ (2013). Thickness evaluation for volume refractive objects using phase maps and statistics-based localization, 31st Samahang Pisika ng Pilipinas (SPP) Physics Congress, Cebu City.

Tarcelo, MX (2013). Dynamic Referencing in Pinhole Scanning Phase Retrieval, 31st SPP Physics Congress, Cebu City.

Maallo, AMS (2013). Wavefront reconstruction with denoising using lateral displacements of a random phase mask, 31st SPP Physics Congress, Cebu City.

Carpio, JPL (2013). Digital watermarking of retrieved phase maps, 31st SPP Physics Congress, Cebu City.

Escoto, E Muldera, J, Dasallas, L and Estacio, E (2013). Coherence evaluation for femtosecond lasers using digital holography and statistical fringe analysis, 31st SPP Physics Congress, Cebu City.

Justine Patricia L. Carpio (2013). Digital watermarking of reconstructed wavefronts via multiple-plane phase retrieval technique, NIP BS Applied Physics thesis.

Mark Xavier V. Tarcelo (2013). Pinhole phase retrieval and dynamic referencing, NIP BS Applied Physics thesis.

Francesca Celine I. Catalan and Anne Margarete S. Maallo (2013). Holograms for the Investigations of 3-D objects, Compressive Stress Loading and Sub-Surface Defects, 80th National Research Council of the Philippines (NRCP) General Membership Assembly, Manila.

Laura Waller, Mostafa Agour, Claas Falldorf, Giancarlo Pedrini, Wolfgang Osten, and Steen G. Hanson (2012). 3D shape measurement using deterministic phase retrieval and a partially developed speckle field, SPIE 8384, 83840Q, Baltimore, Maryland, USA.

Esmerando R. Escoto (2012). Coherence length measurement for femtosecond lasers using digital holography and statistical fringe analysis, 30th Samahang Pisika ng Pilipinas (SPP) National Physics Congress.

Justine Patricia L. Carpio (2012). Watermarking of reconstructed wavefronts, 30th SPP.

Francesca Celine I. Catalan (2012). Interferometric evaluation using deterministic phase retrieval and speckle illumination, 30th SPP.

Anne Margarete S. Maallo (2012). Wavefront reconstruction using single-beam phase-shifting speckle illumination, 30th SPP.

Jae Lord Dexter C. Filipinas (2012). Precise reconstruction distance in digital holography using focus quantifiers, 30th SPP.

Timothy Joseph T. Abregana (2012). Axial Localization of Phase Objects Using a Statistical Contrast Algorithm, 30th SPP.

M. Agour and C. Falldorf (2011). Investigation of smooth wave fields using SLM-based phase retrieval and a phase diffuser, 1st EOS Topical Meeting on Micro- and Nano-Optoelectronic Systems, Bremen.

Jae Lord Dexter Filipinas (2011). Rough object distance measurement and fringe localization using focus measures, 29th SPP National Physics Congress, NIP-U.P.

Diliman.

Francesca Celine Catalan and Anne Margarrette Maallo (2011). Enhanced characterization of sub-surface defects using fringe-shifted shearograms, 29th SPP.

Rommel Bartolome, Charmaine Rose delos Reyes and Anne Margarette Maallo (2011). Optical vortex tracking using standard deviation of phase maps with application in deformation analysis, 29th SPP.

Jae Lord Dexter Filipinas (2011). Interferometric vibration detection using fringe visibility quantifier, 29th SPP.

Anne Margarette Maallo (2011). Deformation analysis using spatial evolution of fringe densities, 29th SPP.

(2011). Let there be diffused light: Novel methods for object wavefront reconstruction, 29th SPP.

F. Catalan, C. B. Delos Reyes and A. M. S. Maallo (2011). Enhanced detection of sub-surface defects using statistical variation of numerically phase-shifted shearograms, 31st PAASE Symposium, NIP-U.P. Diliman.

J. C. Filipinas (2011). High Resolution Technique for the Evaluation of Object Tilt and Rotation Using Amplitude Variance of Reconstructed Wavefronts, 31st PAASE.

T. J. T. Abregana and A. M. S. Maallo (2011). A Statistical Approach to Object Localization in Digital Holographic Microscopy in the Presence of Residual Aberration, 31st PAASE.

C. B. Delos Reyes (2011). Computer Generated Holograms of Optical Vortices, 31st PAASE NIP-U.P. Diliman.

R. L. Bartolome and A. M. S. Maallo (2011). 3D tracking of Optical Vortices using a Statistical Algorithm for Phase Map Analysis, 31st PAASE.

Francesca Celine I. Catalan and Anne Margarette S. Maallo (2011). Enhanced strain analysis using statistics of axial shearograms, 78th National Research Council of the Philippines (NRCP) General Membership Assembly, Manila.

Victor Angelo Gonzalez, Anne Margarette S. Maallo (2011). Enhanced object localization using axial variation of phase maps, 78th NRCP, Manila.

Anne Margarette S. Maallo (2011). Phase map analysis using axial behavior of reconstructed wavefronts, NIP Masteral thesis (as adviser).

NIP Undergraduate thesis (as adviser), (2011). Enhanced object localization using axial variation of reconstructed phase maps, Victor Angelo Gonzalez.

Jacque Lynn Gabayno and Wilson O. Garcia (2010). Reconstruction of wavefront from a photonic crystal fiber using speckle phase retrieval, Photonics 2010, Guwahati, India.

Victor A. C. Gonzalez, Timothy J. T. Abregana (2010). Complete wavefront reconstruction at infrared wavelength using speckle phase retrieval, European Optical Society (EOS) Annual Meeting.

Timothy J. T. Abregana and Victor A. C. Gonzalez (2010). Effects of Illumination Wavelength and Diffuser Roughness Height on Speckle Formation and Phase Retrieval, 28th Samahang Pisika ng Pilipinas (SPP) (Physical Society of the Philippines) National Physics Congress, Antipolo City.

Anne Margarette S. Maallo (2010). Object boundary detection using speckle-based phase

retrieval, 28th SPP.

Maria Vanessa C. Balois (2010). Wavefront sensing using correlations of two speckle intensity measurements and a Shack Hartmann-based algorithm, 28th SPP.

R. Santos (2010). Shearographic inspections of glossy objects and transparent materials using speckle illumination and a diffuser, NIP Undergraduate thesis.

Giancarlo Pedrini, Fucui Zhang, Anne Margarette S. Maallo, Arun Anand, Phanindra N. Gundu, Wei Wang, Anand Asundi, Wolfgang Osten and Steen G. Hanson (2009). Comparison and unification of speckle-based phase retrieval and holography with applications in phasefront alignment and recognition, The 6th International Workshop on Advanced Optical Metrology, Nürtingen, Germany, Springer.

Steen G. Hanson (2009). Computerized laser wavefront alignment with aberration correction using a speckle-based phase retrieval method, Technical Digest of the 3rd International Symposium on Photoelectronic Detection and Imaging.

V. Gonzalez, F. Catalan and R. Santos (2009). Evaluation of a Diffusing Mask as Speckle Generator in Digital Shearography, 27th SPP, Tagaytay City, Philippines.

R. Santos, F. Catalan, V. Gonzalez (2009). Development of a Simplified Model for Deformation and Strain Analyses via Digital Shearography, Proc. 27th SPP.

M. Maallo (2009). Quantization Analysis and a Design for Parallel Speckle Recording for Phase Retrieval using a Volume Speckle Field, Proc. 27th SPP.

F. Catalan, R. Santos, V. Gonzalez (2009). 3D Object Slope Measurement Using a Geometric Model of Digital Shearography, 29th Annual Philippine–American Academy of Science and Engineering Meeting and Symposium–Ateneo de Manila University, Quezon City.

R. Santos, F. Catalan and V. Gonzalez (2009). Automated Strain Analysis of Transparent Samples Using Shearography and a Diffusing Mask, 29th Annual Philippine–American Academy of Science and Engineering Meeting and Symposium–Ateneo de Manila University, Quezon City.

Anne Margarette S. Maallo (2009). Quantization analysis and a design for parallel speckle recording for phase retrieval using a volume speckle field, NIP Undergraduate thesis.

A. S. Maallo (2009). Quantization analysis and a design for parallel speckle recording for phase retrieval, 76th NRCP, Manila Hotel.

Steen G. Hanson (2008). Phase error correction in wavefront curvature sensing via phase retrieval San Diego, U.S.A., SPIE 7064, 70640F.

Anne Margarette S. Maallo (2008). Power loss due to beam splitter cascade in the simultaneous sampling of a volume speckle field for phase retrieval, SPIE 7155, 71551J.

Celine I. Catalan and Raphael D. Santos (2008). Complete deformation analysis of transparent samples using shearography and holography, SPIE 7155, 715536.

M. Maallo (2008). Phase retrieval based on the constraints taken from parallel capture of intensity patterns of a volume speckle field, National Physics Congress, Samahang Pisika ng Pilipinas (SPP).

F. Catalan and R. Santos (2008). Strain analysis of transparent samples using digital shearography and holography, SPP.

E. Reyes (2008). Frequency analysis of phase retrieval using a volume speckle field, U.P..

Arun Anand, Giancarlo Pedrini and Wolfgang Osten (2007). Phase retrieval using a random amplitude mask for wavefront sensing, SPIE 6617, 66170J.

M. Maallo (2007). Characteristics of amplitude masks for wavefront sensing, SPP.

E. Reyes (2007). Influence of CCD pixel size on sampling of volume speckle field for phase retrieval, SPP.

F.C. Catalan (2007). Application of digital shearography in the analyses of surface deformation and photoelastic strain, SPP.

M. Francisco (2007). Height sensitivity in 3D object shape measurement using dual-illumination phase shifting digital holography, SPP.

Michelle Francisco (2007). Three-dimensional optical shape measurement using dual-illumination phase-shifting digital holography, U.P.

Frances Ebreo (2007). Deformation analysis using Lensless Fourier digital holography, U.P.

Giancarlo Pedrini, and Wolfgang Osten (2006). Wave front phase and amplitude reconstruction techniques using multi-intensity patterns, SPIE 6341, 63411C.

G. Pedrini and W. Osten (2006). Phase retrieval using a volume speckle field and synthetic apertures, SPP.

(2004). A technique to control chromatic dispersion of full-color digital hologram reconstructions, SPP.

(2004). Full-color digital holography, U.P.

Selnalyn Ledesma (2004). Multicolor three-dimensional microscopy with digital holography, U.P.

Julius Jecong (2003). In-line semiconductor laser with optical feedback, U.P..

Fema Daquiado (2003). Pulsed full-color digital holography using hydrogen Raman shifter, U.P..

(2003). Measurement of three-dimensional deformations using phase-shifting digital holographic interferometry, Science Diliman.

(2003). Pulsed multicolor digital holography using hydrogen Raman shifter, SPP.

(2003). Digital holographic microscopy, SPP.

(2003). Digital holograms for beginners, SPP.

Marilou Cadatal (2002). Phase-shifting digital holographic interferometry, U.P..

Marie Manuel (2002). Digital holography with a 635nm semiconductor laser diode, U.P..

(2002). Surface profiling of silicon wafers using digital speckle pattern interferometry, SPP.

(2002). Effects of hologram size on image quality, SPP.

(2002). Holography using a 639nm laser diode and a digital photo-camera, SPP.

(2001). Reconstruction of 3-D objects via phase-shifting digital holography, SPP.

(2001). Measurement of 3-D deformations using phase-shifting digital holographic interferometry, SPP.

(2001). Optical recognition of fingerprints, SPP.

Alvin Baclig (2001). Application of optical correlation in fingerprint identification, U.P..

Marienette Morales (2001). Optical correlation using Van der Lugt holographic filters, U.P..

(2000). Optical pattern recognition using holographic films, SPP.

(1999). Holographic studies on human femur with internal fixations, SPP.

(1999). Detection of sub-surface defects in vinyl tiles using double-exposure holographic interferometry, SPP.

(1999). Measurement of solid object deformation using double-exposure holographic interferometry, U.P..

(1998). Evaluation of printed circuit boards using double-exposure holographic interferometry, spp.

M.R.H. Daza (1998). Measurement of microscopic deformations using double-exposure holographic interferometry and the Fourier transform method, Science Diliman.

Francesca Celine Catalan, Raphael Santos, Percival Almoró (). Complete deformation analysis of transparent samples using digital shearography and holography, Ninth International Symposium on Laser Metrology, Volume: 7155.

## Publications

- 2014 Justine Patricia L. Carpio Wavefront watermarking of technical and biological samples using digital random phase modulation and phase retrieval. *Journal of Modern Optics*, July 2014.
- 2014 Esmerando Escoto, Joselito Muldera, Lean Dasallas and Elmer Estacio Mapping of Temporal Coherence Function for Ultrafast Lasers via Statistical Fringe Analysis of Reconstructed Phase Maps. *Optics Communications*, 2014.
- 2013 Francesca Celine I. Catalan Deterministic phase retrieval interferometry. *Optics Communications*, 2013.
- 2013 Giancarlo Pedrini, Wolfgang Osten, and C.S. Narayanamurthy Analysis of Bessel beam propagation in free space using digital holographic microscopy. *Optik - International Journal for Light and Electron Optics*, 2013.
- 2012 Francesca Celine I. Catalan, Anne Margarete S. Maallo Fringe analysis and enhanced characterization of sub-surface defects using fringe-shifted shearograms. *Optics Communications*, 2012.
- 2012 Laura Waller, Mostafa Agour, Claas Falldorf, Giancarlo Pedrini, Wolfgang Osten, and Steen G. Hanson Enhanced deterministic phase retrieval using a partially developed speckle field. *Optics Letters*, 2012.
- 2012 Jae Lord Dexter C. Filipinas Vibration detection using focus analysis of interferograms. *Applied Optics*, 2012.
- 2012 Mostafa Agour and Claas Falldorf Investigation of smooth wave fronts using SLM-based phase retrieval and a phase diffuser. *Journal of the European Optical Society Rapid Publications*, 2012.
- 2011 Percival F. Almoró, Giancarlo Pedrini, Phanindra N. Gundu, Wolfgang Osten, Steen G. Hanson Enhanced wavefront reconstruction by random phase modulation with a phase

- diffuser. *Optics and Lasers in Engineering - OPT LASER ENG* , vol. 49, no. 2, pp. 2011, 2011, 49:252-257.
- 2011 Filipinas, J.C., Almoró, P.F. Fringe localization using focus measure. *Optics Letters*, 2011, 36.
- 2011 Percival F. Almoró, Giancarlo Pedrini, Phanindra N. Gundu, Wolfgang Osten, Steen G. Hanson Enhanced wavefront reconstruction by random phase modulation with a phase diffuser. *Optics and Lasers in Engineering - OPT LASER ENG*, 2011, 49:252-257.
- 2011 Maallo, A.M.S., Almoró, P.F. Numerical correction of optical vortex using a wrapped phase map analysis algorithm. *Optics Letters / DOI: 10.1364/OL.36.001251*, 2011, 36.
- 2011 Jae Lord Dexter C. Filipinas Fringe localization using focus measure. *Optics Letters*, 2011.
- 2011 Anne Margarete S. Maallo Numerical correction of optical vortex using a wrapped phase map analysis algorithm. *Optics Letters*, 2011.
- 2011 Giancarlo Pedrini, Phanindra N. Gundu, Wolfgang Osten, and Steen G. Hanson Enhanced Wavefront Reconstruction by Random Phase Modulation with a Phase Diffuser. *Optics and Lasers in Engineering*, 2011.
- 2010 Percival F. Almoró, Giancarlo Pedrini, Phanindra N. Gundu, Wolfgang Osten, Steen G. Hanson Phase microscopy of technical and biological samples through random phase modulation with a diffuser. *Optics Letters*, 2010, 35(7).
- 2010 Giancarlo Pedrini, Fucái Zhang, Anne Margarete S. Maallo, Arund Anand, Phanindra N. Gundu, Wei Wang, Anand Asundi, Wolfgang Osten, and Steen G. Hanson Fault-tolerant characterization of phase objects using a speckle-based phase retrieval technique. *International Journal of Optomechatronics* 4, 2010.
- 2010 Jesper GlÃ¼ckstad and Steen G. Hanson Single-plane multiple speckle pattern phase retrieval using a deformable mirror. *Optics Express* 18, 2010.
- 2010 Anne Margarete S. Maallo and Steen G. Hanson Quantization analysis of speckle intensity measurements for phase retrieval. *Applied Optics* 49, 2010.
- 2010 Giancarlo Pedrini, Phanindra N. Gundu, Wolfgang Osten, and Steen G. Hanson Phase microscopy of technical and biological samples through random phase modulation with a diffuser. *Optics Letters* 35, 2010.
- 2009 Anne Margarete S. Maallo and Steen G. Hanson Fast-convergent algorithm for speckle-based phase retrieval and a design for dynamic wavefront sensing. *Applied Optics* 48, 2009.
- 2009 Phanindra N. Gundu, and Steen G. Hanson Numerical correction of aberrations via phase retrieval with speckle illumination. *Optics Letters* 34, 2009.
- 2009 Giancarlo Pedrini, Arun Anand, Wolfgang Osten, and Steen G. Hanson Angular displacement and deformation analyses using a speckle-based wavefront sensor. *Applied Optics* 48, 2009.
- 2009 Steen G. Hanson Object wave reconstruction by speckle illumination and phase retrieval. *Journal of the European Optical Society Rapid Publications* 4, 2009.
- 2009 Arun Anand, Vani K. Chhaniwal, Giancarlo Pedrini and Wolfgang Osten Shape and deformation measurements of 3D objects using volume speckle field and phase retrieval. *Optics Letters* 34, 2009.

- 2008 Giancarlo Pedrini, Arun Anand, Wolfgang Osten, and Steen G. Hanson Interferometric evaluation of angular displacements using phase retrieval. *Optics Letters* 33, 2008.
- 2008 Steen G. Hanson Random phase plate for wavefront sensing via phase retrieval and a volume speckle field. *Applied Optics* 47, 2008.
- 2008 Steen G. Hanson Wavefront sensing using speckles with fringe compensation. *Optics Express* 16, 2008.
- 2007 Wilson Garcia, and Caesar Saloma Colored object recognition by digital holography and a hydrogen Raman shifter. *Optics Express* 15, 2007.
- 2007 Arun Anand, Giancarlo Pedrini and Wolfgang Osten Wavefront sensing with random amplitude mask and phase retrieval. *Optics Letters* 32, 2007.
- 2007 Giancarlo Pedrini and Wolfgang Osten Aperture synthesis in phase retrieval using a volumespeckle field. *Optics Letters* 32, 2007.
- 2006 Giancarlo Pedrini, and Wolfgang Osten Complete wavefront reconstruction using sequential intensity measurements of a volume speckle field. *Applied Optics* 45, 2006.
- 2004 Marilou Cadatal, Wilson Garcia, and Caesar Saloma Pulsed Full-Color Digital Holography with a Hydrogen Raman Shifter. *Applied Optics* 43, 2004.

**Name** Ronald S. Banzon

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Associate Professor, College of Science (CS), University of the Philippines, Diliman, Quezon City

Vice Chancellor for Academic Affairs (VCAA), UP, Diliman, Quezon City

**Education**

Ph.D. in Physics, University of the Philippines, Diliman, Quezon City 1997

M.S. ( Physics ), Rensselaer Polytechnic Institute, Troy, New York, U.S.A. 1993

Bachelor of Science in Physics, University of the Philippines, Diliman, Quezon City 1983

B.S. (Physics), University of the Philippines, Diliman, Quezon City, Philippines 1983

**Employment**

Researcher, Wadsworth Center for Laboratories and New York State Health Department (WCLRNYSHD) (Albany), 1988-1988

Deputy Director for Academic Affairs, Deputy Director for Academic Affairs,

Instructor, National Institute of Physics (NIP), College of Science, 1984

Assistant to the College Secretary, National Institute of Physics (NIP), College of Science, 1984

, Deputy Director for Academic Affairs, 1997-2006

Associate Dean for Academic Affairs, University of the Philippines, College of Science, 2006 June- 2011 March

Vice Chancellor for Academic, University of the Philippines Diliman, May 2011-April 2014

Acting Dean and Associate Dean for Academic Affairs, College of Science University of the Philippines Diliman, March 2011-April 2011

Associate Dean for Academic Affairs and Associate Professor, College of Science University of the Philippines Diliman, June 2006-March 2011

Deputy Director for Academic Affairs and Assistant Professor, National Institute of Physics, College of Science University of the Philippines Diliman, February 1997-May 2006

Instructor, National Institute of Physics, College of Science University of the Philippines Diliman, June 1993-January 1997

Teaching Assistant, Department of Physics, Rensselaer Polytechnic Institute ( RPI ), Fall 1989-Spring 1991

Researcher, Wadsworth Center for Laboratories and Research New York State Health Department (WCLR-NYSHD), Summer 1989

Fellow, Department of Physics, RPI, Fall 1988-Spring 1989

Research Assistant, WCLR-NYSHD, Summer 1988

Research Assistant, Department of Physics, RPI, Fall 1987-Spring 1988

Research Assistant, WCLR- NYSHD, Summer 1987

Teaching Assistant, Department of Physics, RPI, Fall 1986-Spring 1987

Instructor, National Institute of Physics, College of Science University of the Philippines, 1984-1986

Assistant to the College Secretary ( Acting Secretary ), College of Science, University of the Philippines, 1984-1985

### Honors / Awards

Fellowship, Rensselaer Polytechnic Institute (RPI) in Troy, New York 1988-1989

Doctoral Scholarship, Phi Kappa Phi April 1997

Doctoral Scholarship, Engineering and Science Education Program (ESEP) June 1994 - 1997

Award for Good Teaching, Department of Physics April 1991

Tuition Scholarship,, RPI, Troy, NY, U.S.A. 1986-1991

### Publications

- 2013 Neris D. Ilano, Cristine Villagonzalo The effect of the Hadamard gate decomposition in the simulation of Grover's algorithm. 31st SPP Physics Congress, October 2013.
- 2013 Micielle N. Capili and Cristine Villagonzalo Determination of the percolation critical exponent as measure of dimension. 31st SPP Physics Congress, October 2013.
- 2013 Joachim Suico and Cristine Villagonzalo Characteristics of nonspanning clusters in a percolating two-dimensional square lattice. 31st SPP Physics Congress, October 2013.
- 2012 Neris D. Ilano and Cristine Villagonzalo The effect of RF distribution on the implementation of quantum CN gate in an Ising spin chain. 30th SPP Physics Congress, October 2012.
- 2012 Micielle N. Capili and Cristine Villagonzalo Percolation critical exponent of a constrained lattice. 30th SPP Physics Congress, October 2012.
- 2011 Micielle N. Capili and Cristine Villagonzalo Determination of the critical exponent in site percolation using average occupation probability on a square lattice. 29th SPP Physics Congress, October 2011.
- 2011 Hilton Lazo and Cristine Villagonzalo Persistence in the zero-temperature dynamics of the 1D Ising model with long range interactions. 29th SPP Physics Congress, October 2011.
- 2010 Chryslie Margus N. Pi-nol Penna model estimate of medical care improvement. 28th SPP Physics Congress, October 2010.
- 2010 Kristine Eia S. Antonio Characterization of an Ising-like SI Model. 28th SPP Physics Congress, October 2010.
- 2009 Chryslie Margus N. Pi-nol Obtaining Finite Populations in a Verhulst-free 8-bit Penna Model with Periodic Change in Reproduction. 27th SPP Physics Congress, October 2009.
- 2009 Kristine Eia S. Antonio Selecting a Practical Successive Over Relaxation Parameter for a Particle-In-Cell Model. 27th SPP Physics Congress, October 2009.

- 2009 Neris D. Ilano and Cristine Villagonzalo Damped Quantum Search in an Ising Spin System. 27th SPP Physics Congress, October 2009.
- 2009 Earl Panganiban and Cristine Villagonzalo Thresholds of Percolating Systems with Two Symmetric Forbidden Zones having a Constant Separation. 27th SPP Physics Congress, October 2009.
- 2009 Hilton Lazo and Cristine Villagonzalo Site Percolation of a Fixed Lattice Size with Growing Regions of Disallowed Occupancy. 27th SPP Physics Congress, October 2009.
- 2008 Chryslie Margus N. Pi-nol Reproduction Age and Survival of a Verhulst-free 8-bit Penna Population. 26th SPP Physics Congress, October 2008.
- 2008 Toni Lei Uy Regions of Constant Earth Magnetic Fields. 26th SPP Physics Congress, October 2008.
- 2008 Mary Joyce Hernal and Cristine Villagonzalo Spanning a space in a quasi- one dimensional lattice vs a two-dimensional lattice with square banned sites. 26th SPP Physics Congress, October 2008.
- 2008 Anthony Amarra and Cristine Villagonzalo Simulation of Grover's Algorithm on a One-Dimensional, Two-Level Ising Spin System. 26th SPP Physics Congress, October 2008.
- 2007 C.N. Pi-nol A Finite Population without Imposing the Verhulst Factor. 25th SPP Physics Congress, October 2007.
- 2007 K.E.S. Antonio Parameter Estimates for a Reaction Rate Model. 25th SPP Physics Congress, October 2007.
- 2007 K.V. Belisario Molecular Dynamics Approach to the Reaction Rate of Composite Particles. 25th SPP Physics Congress, October 2007.
- 2007 M.G. Rodriguez Crafting a Predictor-Corrector Method. 25th SPP Physics Congress, October 2007.
- 2007 M.N. Capili and C. Villagonzalo Calculation of the Average Occupation Probability for Spanning Cluster Formation in Site Percolation. 25th SPP Physics Congress, October 2007.
- 2006 E. S. G. Agra, K. E. S. Antonio and K. V. Belisario Molecular Dynamics of Two Particles on a Ring. 24th SPP Physics Congress, October 2006.
- 2006 R. P. V. Mandingiado, S. Ibo Complexity in Competitive Populations. 24th SPP Physics Congress, October 2006.
- 2006 K. E. S. Antonio Particle Density Dependence of Molecular Dynamics Estimated Reaction Rates. 24th SPP Physics Congress, October 2006.
- 2005 K. E. S. Antonio and K. V. Belisario A Model for Molecular Reaction Rates. 23rd SPP Physics Congress, October 2005.
- 2005 M. D. N. Beech Survivability in an 8-bit Penna Model. 23rd Physics Congress, October 2005.
- 2005 M. L. Nicolas Modeling Molecular Formation via Multiple Collision. 23rd Physics Congress, October 2005.
- 2005 C. O. Jaramillo and C. Villagonzalo Constrained Percolation in Two Dimensions. 23rd Physics Congress, October 2005.
- 2004 Maria Donna N. Beech Periodicity in a Penna Model. 22nd SPP Physics

- Congress, October 2004.
- 2004 R. A. Marco and C. Villagonzalo Effect of the hopping parameter on the current through a 2-atom molecular wire. 22nd SPP Physics Congress, October 2004.
- 2004 E. R. Obias Tempering and Annealing in a Verdier-Stockmayer Polymer. 22nd SPP Physics Congress, October 2004.
- 2004 C. C. Nombres Random deaths and chaos in a Penna Model. 22nd SPP Physics Congress, October 2004.
- 2004 R. Sandagon and C. Villagonzalo Variational Monte Carlo of a 2D Quantum Well System. 22nd SPP Physics Congress, October 2004.
- 2003 C. Nombres Population Dynamics in a Scaled-down Penna Model of Biological Aging. 21st National Physics Congress, October 2003.
- 1999 A Two-dimensional Predator-Prey Model. 17th National Physics Congress, October 1999.
- 1998 On the Convergence of a Finite Element Method. 16th National Physics Congress, October 1998.
- 2004 E. R. Obias Tempering and Annealing in a Verdier-Stockmayer Polymer. Science Diliman, Jul-Dec 2004.
- 2004 R. A. Marco and C. Villagonzalo Hopping in a Molecular Wire. Science Diliman, Jul-Dec 2004.
- 1998 A Two-dimensional Predator-Prey Model. Science Diliman, Jan-Jun 1998.
- 1996 Evidence for a Second Order Supercoiling of Plectonomic DNA. 14th National Physics Congress, December 1996.
- 2011 Chryslie Margus Piñoll, Ronald Banzon The effect of limiting resources in aging populations. Proceedings of the 8th WSEAS international conference on fluid mechanics, 8th WSEAS international conference on Heat and mass transfer, 2011 Ja.
- 2011 Chryslie Margus N. Piñol Stability in a population model without random deaths by the Verhulst factor. Physica A, 2011.
- 2011 Chryslie Margus N. Piñol . Catastrophic senescence and semelparity in the Penna aging model. Theory in Biosciences, 2011.
- 2011 Chryslie Margus N. Piñol. The effect of limiting resources in aging populations. 8th WSEAS International Conference on Mathematical Biology and Ecology, 2011.
- Kristine Eia S. Antonio, Chryslie Margus N. Piñol An Ising model approach to malware epidemiology. 2010 International Congress on Computer Applications and Computational Science,

**Name** Rene C. Batac

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Member, Instrumentation Physics Laboratory,

PhD Staff, Instrumentation Physics Laboratory,

Associate Member, Samahang Pisika ng Pilipinas (Physics Society of the Philippine),

Councilor, Samahang Pisika ng Pilipinas (Physics Society of the Philippine),

**Education**

Doctor of Philosophy in Physics, University of the Philippines Diliman, Diliman, Quezon City 2011

Master of Science in Physics, National Institute of Physics, University of the Philippine Diliman, Diliman, Quezon City 2008

Bachelor of Science in Physics, National Institute of Physics, University of the Philippine Diliman, Diliman, Quezon City 2006

**Employment**

Postdoctoral researcher, Max Planck Institute for the Physics of Complex Systems, May 2012-May 2014

Instructor, National Institute of Physics, U.P Diliman, June 2006-April 2011

**Association Membership**

Academic Affairs Committee, UP Physics Association

Junior Faculty, UP Physics Association

Secretary, UP Physics Association

**Honors / Awards**

Visiting Scientist Postdoctoral Position, Max Planck Institute for the Physics of Complex Systems 2012

Awardee, Graduate Scholarship, DOST PCASTRD 2008

Best Poster Awardee, National Research Council of the Philippines 2008

Awardee, National Undergraduate Science Scholarship, DOST SEI (under R.A. 7687) 2001-2006

Salutatorian, Marikina High School 2001

Recipient, President Gloria Macapagal Aroyo Leadership Award 2001

Recipient, Gerry Roxas Leadership Award 2001

Awardee, Mercury Drug Academic Recognition in Science 2001

**Publications**

- 2014 A.A. Paguirigan Jr. and C.P. Monterola Loss of criticality in the avalanche statistics of sandpiles with dissipative sites. *Communications in Nonlinear Science and Numerical Simulations*, June 2014.
- 2014 H. Kantz Observing spatiotemporal clustering and separation using interevent distributions of regional earthquakes. *Nonlinear Processes in Geophysics*, 2014.
- 2013 A. M. Jayin and J. Bantang Dual scaling properties of size and rank frequency distributions in a model of alternating popularity growth and decay. *Samahang Pisika ng Pilipinas Physics Congress*, 2013.
- 2013 A. Tarun and J. Bantang Analysis of avalanche dynamics using color-coded layers of grains. *Samahang Pisika ng Pilipinas Physics Congress*, 2013.
- 2012 A. Longjas, and C. Monterola Statistical distributions of avalanche size and waiting times in an inter-sandpile cascade model. *Physica A*, 2012.
- 2012 A.M. Jayin, A. Tarun, E.F. Legara, J. Bantang Popularity of personalities in society as driven by news. *Samahang Pisika ng Pilipinas Physics Congress*, 2012.
- 2012 A. Tarun, A.M. Jayin, A. Longjas, J. Bantang Asymmetric collapse and two-dimensional spreading of a binary granular column. *Samahang Pisika ng Pilipinas Physics Congress*, 2012.
- 2012 H. Kantz Incorporating spatial properties in the statistical analysis of Philippine earthquakes. *Samahang Pisika ng Pilipinas Physics Congress*, 2012.
- 2011 L. Buñeo, M. Pastor, J. Bantang, C. Monterola Void statistics as deterministic tools in avalanche prediction. *Samahang Pisika ng Pilipinas Physics Congress*, 2011.
- 2011 A. Paguirigan Jr. and C. Monterola Effects of reinforcements on a sandpile model. *Samahang Pisika ng Pilipinas Physics Congress*, 2011.
- 2011 A. Longjas and C. Monterola Relationship between size and waiting time distributions in the empirical data for natural hazards. *Samahang Pisika ng Pilipinas Physics Congress*, 2011.
- 2011 B.E. Borja and C. Monterola A model of granular egress in a region with varying spatial constraint. *Samahang Pisika ng Pilipinas Physics Congress*, 2011.
- 2010 I. Crisologo, A. Longjas, E.F. Legara, and C. Monterola Visual and auditory cues significantly reduce human's intrinsic biases when tasked to generate a random number sequence. *International Journal of Modern Physics C*, 2010.
- 2010 C. Monterola, I. Crisologo, J. Tugaff, and A. Longjas Surface morphology of chalkboard tips captures the uniqueness of the user's hand strokes. *International Journal of Modern Physics C*, 2010.
- 2010 A. Paguirigan and C. Monterola Emergence of small-avalanche rollover regimes by increased neighborhood interaction in a sandpile model. *Samahang Pisika ng Pilipinas Physics Congress*, 2010.
- 2010 A. Longjas, I. Crisologo, E. Legara, C. Monterola Simultaneous Visual And Auditory Cues Enhance Human Random Number Generation. *Samahang Pisika ng Pilipinas Physics Congress*, 2010.
- 2010 A. Longjas and C. Monterola Loss of self-organized criticality in a cascaded sandpile. *Samahang Pisika ng Pilipinas Physics Congress*, 2010.
- 2009 M. Arciaga, M. Pastor, J. Bantang, and C. Monterola Experimental observation and an

- empirical model of enhanced heap stability resulting from the mixing of granular materials. *Journal of Statistical Mechanics - Theory and Experiment*, 2009.
- 2009 M.G. Pastor, M.E. Arciaga, J.Y. Bantang, and C.P. Monterola Kinks, logarithmic tails, and super-stability in bi-disperse granular media. *Physica A*, 2009.
- 2009 E.F.T. Legara, A.G. Longjas Competition in a social structure. *International Journal of Modern Physics C*, 2009.
- 2009 A. Longjas and C. Monterola Size and waiting time statistics of multiple sandpile cascades. *Samahang Pisika ng Pilipinas Physics Congress*, 2009.
- 2009 A. Paguirigan and C. Monterola Time evolution of a landslide system with time-varying drying rates. *Samahang Pisika ng Pilipinas Physics Congress*, 2009.
- 2009 A. Paguirigan, C. Monterola Effects of water on the stability of the sandpile model: Interplay between stabilization and saturation. *Samahang Pisika ng Pilipinas Physics Congress*, 2009.
- 2009 I. Crisologo, A. Longjas, E.F. Legara, C. Monterola Waiting time statistics reveal natural period of humans in random number generation tasks. *Samahang Pisika ng Pilipinas Physics Congress*, 2009.
- 2008 D.E. Juanico, A.G. Longjas, and C.P. Monterola Avalanche Statistics of Driven Granular Slides in a Miniature Mound. *Geophysical Research Letters*, 2008.
- 2008 D.E. Juanico, A.G. Longjas, and C.P. Monterola Avalanche Statistics of Driven Granular Slides in a Miniature Mound. *Geophysical Research Letters*, 2008.
- 2008 D.E. Juanico, A.G. Longjas and C.P. Monterola Avalanche Statistics of Driven Granular Slides in a Miniature Mound. *Geophysical Research Letters*, 2008.
- 2008 M. Pastor and C. Monterola Kinks and logarithmic tails as stability markers in binary granular piles. *Samahang Pisika ng Pilipinas Physics Congress*, 2008.
- 2008 A. Longjas, G. Esleta, C. Monterola Cascading dynamics recovers actual landslide scaling exponent. *Samahang Pisika ng Pilipinas Physics Congress*, 2008.
- 2008 A. Longjas, D.E. Juanico, C. Monterola Observation of Self Organized Criticality in a miniature granular mound. *Samahang Pisika ng Pilipinas Physics Congress*, 2008.
- 2008 J. Tugaff, I. Crisologo, A. Longjas, C. Monterola Chalk Print? Feasibility of predicting the lecturer based on his/her chalk leftovers. *Samahang Pisika ng Pilipinas Physics Congress*, 2008.
- 2008 E.F. Legara, A. Longjas Competition in a social structure. *Samahang Pisika ng Pilipinas Physics Congress*, 2008.
- 2007 M. Pastor, M. Arciaga, C. Monterola Cellular automata model of repose angle formation of a binary granular mixture. *Samahang Pisika ng Pilipinas Physics Congress*, 2007.
- 2007 A. Longjas and C. Monterola Experimental verification of a dissipative self-organized critical sandpile. *Samahang Pisika ng Pilipinas Physics Congress*, 2007.
- 2006 J. Bantang Characterizing Cellular Automata Rules Using Quantitative Lattice Properties. *Samahang Pisika ng Pilipinas Physics Congress*, 2006.
- 2005 J. Bantang Characterizing elementary cellular automata rule 30 under single-cell overlap and information transfer. *Symposium on the Mathematical Aspects of Computer Science*, 2005.

2004 J. Bantang, C. Saloma Cellular Automata Model of n-Slit Light Diffraction. Samahang Pisika ng Pilipinas Physics Congress, 2004.

**Name** Luis Maria T. Bo-ot

**Gender** Male

**Civil Status** Single

**Education**

Ph.D. in Architecture (Candidate), Dept. of Architecture National Cheng Kung University, Tainan, Taiwan Sept 2005 - ongoing

M.S. in Physics, Russian People's Friendship University (Formerly Patrice Lumumba Univ.), Moscow 117198 Russia Sep 1987 - Jun 1992

Preparatory Course, Kiev Institute of Civil Engineering, Kiev, Ukraine Sep 1986 - Jun 1987

Ph.D. in Physics, National Institute of Physics University of the Philippines Diliman, Diliman, Quezon City Oct 1994 - Apr 1997

B.S. in Architecture, College of Architecture University of the Philippines Diliman, Diliman, Quezon City Jun 1977 - Apr 1982

**Employment**

Phil. DOST-ESEP Post Doctoral Fellow, National Institute for Fusion Science Toki City, Japan, Jan. 1998-June 1998

Hitachi Scholarship Foundation Post Doctoral Fellow, National Institute for Fusion Science Toki City, Japan, July 2001-Jan. 2002

University Researcher, National Institute of Physics University of the Philippines Diliman, June 1993-May 1994

Instructor 5, National Institute of Physics University of the Philippines Diliman, June 1994-May 1996

Researcher, Center for Fluid Dynamics University of the Philippines Los Banos, June 1996-May 1997

Assistant Professor 3, National Institute of Physics University of the Philippines Diliman, June 1997-December 2000

Lecturer, College of Architecture University of the Philippines Diliman, June 1994-Oct. 2003

Deputy Director for Resources and Facilities, National Institute of Physics University of the Philippines Diliman, Aug. 1998-June 2001

Assistant Professor 7, National Institute of Physics University of the Philippines Diliman, Jan. 2001-June 2005

Deputy Director for Resources and Facilities, National Institute of Physics University of the Philippines Diliman, June 2002-June 2006

Associate Professor 3, National Institute of Physics University of the Philippines Diliman, July 2005-Mar 2008

Associate Professor 4, National Institute of Physics University of the Philippines Diliman, Apr 2008-May 2009

Associate Dean For Resources and Facilities, College of Science University of the Philippines Diliman, Aug 2009-present

Associate Professor 5, National Institute of Physics University of the Philippines Diliman, June 2009-May 2010

Lecturer, College of Architecture University of the Philippines Diliman, June 2010-present

Associate Professor 6, National Institute of Physics University of the Philippines Diliman, June 2010-present

## Publications

- 2010 L. Jirkovsky Two and Three Dimensional Self Gravitating System with Initial Singularity. HORIBA COSMO/CosPA International Conference, Tokyo, Sept. 2010.
- 2009 C-M Chiang, K-S Liu and P-J Chen Cochlea Box Model: Establishing Aural Comfort, Illustrating Injury and Towards Therapy. Healthy Buildings 2009 International Conference and Exhibition in Syracuse, USA, Sept. 2009.
- 2013 A. Aquino Multivalued Behavior for a Two-Level System Using Direct Application of Homotopy Analysis Method. 31st National Congress of the Samahang Pisika ng Pilipinas, Cebu, Oct. 2013.
- 2012 A. Aquino Multivalued Behavior for a Two-Level System as a Lotka- Volterra Equation Using Homotopy Analysis Method. 30th National Congress of the Samahang Pisika ng Pilipinas, Cavite, Oct. 2012.
- 2006 C. Mahinay Solution to Navier-Stokes Equation using Finite Difference. 24th National Congress of the Samahang Pisika ng Pilipinas, Davao, Oct. 2006.
- 2005 L. Jirkovsky Higher Order Momentum Equation and Onset of Turbulence. 23rd National Congress of the Samahang Pisika ng Pilipinas, Iloilo, Oct. 2005.
- 2002 L. Jirkovsky Third-Order MHD: Application to Hartmann Flow. 20th National Congress of the Samahang Pisika ng Pilipinas, Albay, Oct. 2002.
- 2001 L. Jirkovsky Onset of Turbulence in Planar and Circular Pipe. 19th National Congress of the Samahang Pisika ng Pilipinas, Nueva Vizcaya, Oct. 2001.
- 2000 L. Jirkovsky Derivation of the 3rd Order MHD Equations. 18th National Congress of the Samahang Pisika ng Pilipinas, Palawan, Oct. 2000.
- 2013 L. Jirkovsky Taylor-Couette flow and the Molecule Dependent Transport Equation. 66th Meeting of the APS-Division of Fluid Dynamics, Pittsburgh, USA, November 2013.
- 2011 H. Lee, H. Ramos and C-M Chiang Four-chamber cochlea box model: Establishing Acoustic Comfort, Illustrating Injury and Towards Therapy. 161st Meeting of the Acoustical Society of America in Seattle, USA, May 2011.
- 2000 L. Jirkovsky On the MHD Couette Flow. Regional Conference on Plasma Research in the 21st Century, Bangkok, May 2000.
- 2002 A. Muriel Non-Maxwellian and Multi-Stream Flows in a Two-Level Gas. 23rd International Symposium on Rarefied Gas Dynamics, British Columbia, Canada, July 2002.
- 2007 G. Blantocas, C.M. Chiang, K.S. Liu and H.Ramos Statistical Considerations of Experimental Results of LEHIS Treated Wood. Sustainable Building Conference 2007, Hong Kong SAR, Dec. 2007.

- 2000 L. Jirkovsky A Model for the Poiseuille Flow. 8th Asia Pacific Physics Conference, Taipei, Aug. 2000.
- 1999 L. Jirkovsky On the Hartmann Hydromagnetic Flow. 14th Intâ€™l. Symp. On Plasma Chemistry, Prague, Aug. 1999.
- 2012 S. Formoso Development of a Prototypical Acoustic Tapping Machine. International Journal of Arts and Sciences Vienna Conference, Vienna, April 2012..
- 2013 S. Ong Structural Considerations for a Philippine Amphibious House. Inter-University Seminar on Asian Megacities, 2013.
- 2012 L. Jirkovsky, A. Muriel and H. Ramos Time development of Two and Three-Dimensional Self-gravitating System Using Initial Dirac Delta Function Distribution. Physica A, 2012.
- 2012 Y-H Wang, C-M Chiang and C-M Lai Effects of a green layout on the urban heat island and the microclimate at the community level. Energies, 2012.
- 2012 S. Formoso Development of a Prototypical Acoustic Tapping Machine. ACARE, 2012.
- 2012 R. Clarin Alternative Construction Methods for Projects with Short Turnover Time. Conference for Sustainable Business in Asia, 2012.
- 2010 L. Jirkovsky and C-M Chiang MHD from a Microscopic Concept and Onset of Turbulence in Hartmann Flow. Commun. Theor. Phys., 2010.
- 2009 L. Jirkovsky Application of Projection Techniques to Plasma Fluid and Onset of Turbulence in Hartmann Flow. Studia Oecologica, 2009.
- 2008 L. Jirkovsky Numerical Tests of a New Molecule-Dependent Momentum Transport Equation. Physica A, 2008.
- 2007 G. Blantocas, P. Mateum, R. Orille, R. Ramos, J. Monasterial and H. Ramos Inhibited Flammability and Surface Inactivation of Wood Irradiated by Low Energy Hydrogen Showers (LEHIS). Nucl. Inst. & Meth. Phys. Research B, 2007.
- 2005 L. Jirkovsky Momentum Transport Equation for the Fluids Using Projection-Perturbation Formalism and Onset of Turbulence. Physica A, 2005.
- 1999 L. Jirkovsky On the MHD Couette Flow. 17th Congress of the Samahang Pisika ng Pilipinas, Tacloban City, 1999.
- 1998 L. Jirkovsky On the Hartmann Hydromagnetic Flow. 16th Congress of the Samahang Pisika ng Pilipinas, Quezon City, 1998.
- 1997 L. Jirkovsky and A. Muriel Thermodynamics and Liquid-Vapor Phase Transition for the Lu-Marlow Potential. 15th Congress of the Samahang Pisika ng Pilipinas, Cebu City, 1997.
- 1997 L. Jirkovsky A Model for the Poiseuille Flow. 15th Congress of the Samahang Pisika ng Pilipinas, Cebu City, 1997.
- 1996 L. Jirkovsky Temperature and Velocity Mappings on Momentum and Energy Transport. Presented during the 14th Congress of the Samahang Pisika ng Pilipinas , Quezon City, 1996.
- 1995 H. Ramos Sputtering Yield Dependence on Different Projectile-Target Combinations and their Energies. Presented during the 13th Congress of the Samahang Pisika ng Pilipinas, Iligan City, 1995.
- 1995 H. Ramos and N. Limcangco Collision Processes in the Cathode-Fall Region of Negative

Glow Discharge. Presented during the 13th Congress of the Samahang Pisika ng Pilipinas, Iligan City, 1995.

J. Jirkovsky Taylor-Couette Flow and a Molecule Dependent Transport Equation. Physica A.

**Name** Rafael Cruz Bundoc  
**Place of Birth** Tondo, Manila  
**Date of Birth** April 11, 1962  
**Gender** Male  
**Civil Status** Married  
**Home Address** 2337 Juan Luna Street, Gagalangin, Tondo, Manila

**Organizational Affiliations**

Associate Professor II, Dept. of Anatomy, UP College of Medicine, Manila  
Clinical Assistant Professor, Dept. of Orthopedics, UP-PGH  
Head, Integrated Biomechanical Laboratory, UP-PGH Medical Center  
Program Leader, Biomedical Engineering Program, National Institutes of Health  
Project Leader, Anatomical Plastination Laboratory  
Director, Experimental Animal Research Laboratory, UP College of Medicine, Manila  
Board Member, Philippine Association for the Reintegration of Disabled to Society  
Consultant, Philippine Foundation of Science and Technology  
Medical Consultant, Dept. of Surgery, Mary Johnston Hospital

**Education**

Post Graduate Medicine Proper, University of the Philippines, College of Medicine, Manila 1986  
AB Humanities, University of the Philippines, Diliman, Quezon City 1977-1981

**Fields of Specialization**

Spine Surgery (Scoliosis Surgery)  
Biomechanics of Spinal Stabilization Devices  
Inventing/Innovating Medical Orthopaedic Devices  
Biomechanics of Bone Stabilization Devices  
Design of Prosthetic and Orthotic appliances  
Rehabilitation Engineering  
Studies on Anatomical Variations

**Employment**

Philippine Society of Anatomists, Secretary, 1997-1998  
Assistant Director's Office for Health Operations, Coordinator for Training, 1995-1997  
Dept. of Orthopaedics, UP-PGH Medical Center, Chief Resident, 1991-1991  
Dept. of Orthopaedics, UP-PGH Medical Center, Medical Illiustrator.  
Queensland Dept. of Primary Industries at Redlands Research Station, Cleveland, Queensland, Au., Casual Research Assistant, 1994-1996

University of the Philippines, University Researcher, 1989

University of the Philippines, University Research Associate, 1989-present

UP, Research Assistant, 1983

UP, Research Aide, 1982

### **Association Membership**

Fellow, Philippine Orthopedic Association

Diplomate, Philippine Board of Orthopedics

Founding Member, Philippine Pediatric Orthopedic Society

Lifetime Member, Phi Kappa Phi International Honor Society

Lifetime Member, Mu Sigma Phi Fraternity, UP College of Medicine

Member, UP College of Medicine Alumni Association

Member, Philippine Spine Society

Elected Honorary Fellow, Girdlestone Orthopaedic Society, U.K.

### **Honors / Awards**

Joseph Trueta Fellowship Award, Nuffield Orthopedic Center, Girdlestone Orthopedic Society of the Oxford University 1999

Crisostomo Garcia Award for Outstanding Junior Faculty, University of the Philippines-Manila 1998

UP Manila Achievers Award, UP Manila 1997

The Outstanding Young Men (TOYM) Awards in the Field of Medicine, Philippine Jaycees, Gerry Roxas TOYM Foundation 1996

Outstanding Inventor/Innovator, UP-Manila Invention/Innovation Fair for a new method of bone model replication 1996

Outstanding Basic Science Lecturer, Gantimpala sa Pagtuturo ng Saligang Agham, 1996

Outstanding Teacher in Basic Science, Dr. Augusto Camara UP Medicine Fund for Academic Excellence 1996

First Prize, Philippine Talent Search for Young Scientist, National Academy of Science and Technology-DOST 1995

Outstanding Inventor/Innovator, 1994, UP-Manila Invention/Innovation Fair of the Institute of Socio, Bio-Medical Research 1994

Citation and Plaque of Merit for services rendered in the medical relief operations. Baguio City, n.a. 1990

Outstanding Med. Intern in Dept. of Ortho., Surgery, Internal Med., Pedia. and Otorhinolaryngology, UP Medical Center 1987

Outstanding Clinical Clerk, UP-PGH Medical Center 1986

Scholarship Award, NSTA-PNC 1974

Scholarship Award, UP-NSTA 1980

### **Trainings**

Travelling Fellowship/ Symposium - Prosthetic/Orthotic Biomechanics, Lubeck University, University of Hamburg, Kiel University, Germany 1994

Pediatric Spine Surgery and Microvascular Surgery, Dept. of Orthopaedics & Traumatology, Prince of Whales Hospital/ Chinese University of Hongkong 1992

Residency, Dept. of Orthopaedics 1987

Internship, UP-PGH Medical Center 1986

Medical Clerkship, University of the Philippines-PGH Medical Center 1985

## Researches

### Completed

Anatomic variations of the muscular insertion of the musculocutaneous nerve to the coracobrachialis muscle: a descriptive study.

Biomechanical evaluation of the stabilization provided by translaminar-to-facet screw fixation for degenerated lumbar spine.

Compressive strength of segmental corticocancellous allografts following various preservation and sterilization methods.

Spinal stabilization techniques in traumatic unstable subaxial cervical spine.

Locally manufactured bone replica

### On-going

Applications of laser holographic interferometry as a qualitative and quantitative measurement for stress-strain reactions of long bones to loading.

The use of Ticalcium phosphate and hydroxyapatite bioceramics as segmental bone substitutes in bridging osseous defects.

## Publications

- 2002 Escano, JAMR Leagogo, LAC Jr. Bundoc, R.C. The rigidity of a locally designed external fixator for fractures of the distal: A biomechanical study. Philippine Journal of Orthopaedics, 2002, 21(1):39-43.
- 1998 Tangente, R. Bundoc, R. C. Variations of the arterial circulation of the ankle and foot: A cadaveric study among Filipinos. . Philippinen Journal of Orthopedics, 1998, 27((1):):24-32.
- 1997 Maffulli, N. Chan, K. M. Bundoc, R. C. Knee arthroscopy in Chinese children and adolescents: An eight year prospective study.. The Journal of Arthroscopic and Related Surgery, 1997, 13((1):):18-23.
- 1996 Hung, L .K. Cheng, J. Y. C. Bundoc, R. C. Thumb duplication at the metacarpophalangeal joint. Clinical Orthopedics and Related Research, 1996, 323:31-41.
- 1996 Da La Costa, R. D. Reyes, L. M. Bundoc, R. C. The morphological and spatial relationships of the piriformis muscle and the sciatic nerve in 182 Filipino hips.. Acta Medica Philippina, 1996, 32((2):):63-69.
- 1996 Bundoc, R. C Pediatric sports injury: An epidemiological survey in Hong Kong. Acta Medica Philippina, 1996, 32((2):):41-48.
- 1996 Leung, J. P. Bundoc, R. C. Anatomical variations of the recurrent thenar branch of the

- median nerve at the carpal tunnel - A cadaveric study among Filipinos.. Philippine Journal of Orthopedics, 1996, 15((1):):14-17.
- 1996 Bundoc, R. C. The efficacy of a locally designed continuous passive motion machine in the post operative management of traumatic knee injuries. The Philippine Journal of Orthopedics, 1996, 15((1):):31-37.
- 1994 Cheng J. C. Y. Hung, L. K. Bundoc, R. C. Congenital pseudarthrosis of the ulna.. Journal of Hand Surgery, 1994, 19:238-243.
- 1993 Bundoc, R. C. Cycling injuries.. In: Health and Science Section of the Manila Bulletin Periodical, 1993, 250((13):):14.
- 1992 Bundoc, R. C. Stability of locally utilized external fixators: A comparative biomechanical study.. The Journal of the ASEAN Orthopaedic Association, 1992, 6:93-96.
- 1991 Bundoc, R. C. Medical Illustrations. In: Instructional Course Manual in Pediatric Orthopaedics (Montalban, A.M. ed.) 1st Edition, NTTTC Publications, 1991.
- 1990 Montalban, A. M. Bernardo, P. C. Bundoc, R. C. One-staged multiple circumferential Z-plasty release in Streeter's dysplasia.. The Philippine Journal of Orthopedics, 1990, 9:30-35.

**Name** Rolando T. Cruz  
**Gender** Male  
**Civil Status** Single  
**Home Address** No. 1 Dairyville, U.P. Los Baños, College, Los Baños, Laguna, Philippines

**Organizational Affiliations**

Agronomy, Soils and Plant Physiology Division Philippine Rice Research Institute (PhilRice), Muñoz, Nueva Ecija, Philippines

Affiliate Professor, Central Luzon State University (CLSU), Muñoz, Nueva Ecija, Philippines

**Education**

Ph.D., Agronomy (Crop/Plant Physiology and Soil-Plant-Water Relations) - Texas A & M University, College St, Texas, U.S.A. 1991

M.S., Agronomy and Crop Physiology - University of the Philippines, Los Baños 1981

B.S.A., University of the Philippines, Los Baños 1975

**Employment**

Researcher, Department of Agronomy, International Rice Research Institute (IRRI), Los Baños, Laguna, Philippine, April, 1976-May, 1986

Research Assistant, University of the Philippines at Los Baños., April 1975-March 1976

Chief Science Research Specialist and Head, Agronomy and Plant Physiology, Soils and Water Management and Farming Systems Division, The Philippi, June 1993-June 1998

Program Leader, Direct Seeded Irrigated Lowland Rice, PhilRice, July 1998-December 1999

Sr. Scientist, Agricultural Development and Research Division, Dole Asia, Ltd. Lanang, Davao City 8000 Philippines, January 2000-October 2001

Chief Science Research Specialist, Agronomy and Plant Physiology, Soils and Water Management and Farming Systems Division, November 2001-February 2010

Chief Science Research Specialist and Scientist I, Agronomy and Plant Physiology, Soils and Water Management and Farming Systems Division, June 2011-May 2012

Program Leader, Natural Products and Value-adding Systems, PhilRice, January 2012-May 2013

Scientist I and Chief Science Research Specialist, Agronomy and Plant Physiology, Soils and Water Management and Farming Systems Division, and Program, June 2013-PRESENT

**Honors / Awards**

Japan International Cooperative Agency (JICA) Citation, Participation in Research Training on Rice Plant Physiology in Different Prefectures in Japan 1999

Outstanding Performance Award, International Rice Research Institute (IRRI) 1980-1985

Best Paper Award for paper on Leaf Color Chart Technology for the Rice Farmer, 10th

National Rice R&D, Muñoz, Nueva Ecija; 1st Batac Science and Technology Exhibit, Batac, Ilocos 1997

IRRI Citation for Membership, Integrated Nutrient Management International Network Steering Committee and Role in Guiding the Inte 2000

Life Membership, Crop Science Society of the Philippines 2003

Life Membership, Gamma Sigma Delta Honor Society of Agriculture 2001

Best Poster Paper, Insect Pest Diagnostic Kit for Rice Farmers 13 to 15 April 2004

Citation for Chairing the Board of Judges for the Best Oral Paper in the 17th Annual FCSSP Conferenc, Annual FCSSP Conference, 24th , Aklan State University, Banga, Aklan, Philippines 24th April 2003

Citation for Chairing the Board of Judges for the Best Oral Paper in the 35th Annual CSSP Conference, Waterfront Insular Hotel, Lanang, Davao City, Philippines March 2004

Citation for Chairing the Board of Judges in the Best Oral Paper in the 18th Annual FCSSP Conference, Grand Caprice Convention Center, Cagayan de Oro City, Philippines May 2005

Citation for Acting as a Resource Speaker, Conference on Meteorological Applications in Support to Agricultural Production for Decision-makers 5 December 2005

Citation for Acting as Resource Person, 1st National Meteorological-Hydrological Convention "Weather, Climate and Water: Implications to S 12-13 December 2005

Citation for Acting as a Resource Speaker, Short Course in Agroclimatology conducted in PAGASA 15-16 December 2005

Best Paper Award for paper on "Re-engineered floating tiller: key to reduced drudgery and improved, Philippine Society of Agricultural Engineers (PSAE) 4th International Convention and Exhibition and 17-21 April 2006

Citation being the Plenary Speaker of the Paper " State of the Art of Research and Development on, Rice, Water and Forests Conference, PCARRD, Los Baños, Laguna, Philippines 22 February 2007

Certificate for serving as Resource Person, Rice S&T Updates for CAR Implementers , PhilRice Central Experiment Station, Muñoz, Nueva Ecija, Ph 17-19 April 2007

Membership in the National Seed Industry Council, Bureau of Plant Industry, Department of Agriculture, Republic of the Philippines 2007-2008

Crop Science Society of the Philippines (CSSP) Achievement Award in Research for the year 2008, 38th CSSP Scientific Conference 12-16 May 2008

Conferred the Rank of Scientist I, Department of Science and Technology (DOST) and Civil Service Commission (CSC) of the Philippines 23 July 2008

President-Elect of the Gamma Sigma Delta Honor Society of Agriculture, University of the Philippines Los Baños Chapter 2009-2010

Elected President, Philippine Association of Career Scientists under the Department of Science and Technology 2011-2012

Best Poster Paper Award for paper on "Evaluation of Nutrient Diagnostic Techniques Based on Yield, 25th National Rice R&D Conference 4-6 September 2012

Best Poster Paper Award for paper on "Rice Black Bug Population and Its Natural

Enemies at Differe, presented during the 26th National Rice R&D Conference 4-5 September 2013

Received the Highest Citation Index, PhilRice for international journal papers; Total no. of publications: 200 in international & national January 2013

Editor in Chief, Rice-Based Biosystems Journal October 2014 to present

### **Papers Presented**

N.C. Turner, M. Dingkuhn, and J.C. O'Toole (June 1985). Leaf rolling, Physiological, and yield response of dryland rice (*Oryza sativa* L.) to water deficits, Abstract of paper presented at the Annual Meeting of the Australian Society of Plant Physiologists.

(December 5, 2005). Rice yield variability in the Philippines. Conference in Meteorological Applications, The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), Quezon City, Philippines.

Malabayabas, M.D., C.A. Santin and W.B. Collado (8-12 March 2004). Yield Potential of Recently-Released and Popular Rice Varieties, Abstracts of paper presented at the 35th Annual Scientific Meeting of the CSSP, Lanang, Davao City, Philippines.

Joshi, R.C., A.R. Martin, E.C. Martin, N.S. dela Cruz (8-12 March 2004). Golden Apple Snail: Efficient Weed Management in Lowland Irrigated Transplanted Rice Fields, 35th Annual Scientific Meeting of the CSSP. Lanang, Davao City, Philippines.

O'Toole, J.C. (5-10 August 1979). Leaf water potential, stomatal resistance and leaf rolling in water stressed rice (*Oryza sativa* L.), Abstract of paper presented at the Annual Meeting of the American Society of Agronomy.

(31 July 2007). System of rice intensification, Sichuan Academy of Agricultural Sciences.

Ekayanake, I.J., K.T. Ingram, and S.K. DeDatta (30 November - 5 December 1986). Pressure-volume water relations of rice panicles in response to water deficit, Abstract of paper presented at the Annual Meeting of the American Society of Agronomy.

O'Toole, J.C. (30 November - 5 December 1980). Water stress at flowering stage in rice, Abstract of paper presented at the Annual Meeting of the American Society of Agronomy.

(30 July 2008). Guidelines in using the PhilRice leaf color chart, Luxian Experiment Station, Rice and Sorghum Research Institute, Sichuan Academy of Agricultural Sciences, Sichuan, China.

(29 July 2008). Rice nitrogen fertilizer use efficiency in the world: Developments and achievements, Luxian Experiment Station, Rice and Sorghum Research Institute, Sichuan Academy of Agricultural Sciences, Sichuan, China.

W.R. Jordan, and M.C. Drew. (28 July - 1 August,). Anatomical and hydraulic properties of sorghum roots exposed to water deficit, Abstract of paper presented at the Annual Meeting of the American Society of Plant Physiologists.

E.L. Aragon, S.K. DeDatta, and J.C. O'Toole (25-30 November 1984). Evaluation of lodging in modern rice varieties, Abstract of paper presented at the Annual Meeting of the American Society of Agronomy.

W.B. Collado and G.N. Atlin (22-25 April 2003). Growth and Yield of Direct-seeded Rice Varieties and Breeding Line in Flooded and Non-flooded Puddled Clay Soil Conditions, Abstracts of paper presented at the 17th Annual Scientific Meeting of the CSSP, Banga, Aklan, Philippines.

J.L. De Dios, J.A. Manalo IV, M.J.M. Mariano and L.S. Sebastian (22 February 2007). State of the art research and development on the interface among rice production, water

and forest, Rice, Water & Forests Conference.

W.R. Jordan, and M.C. Drew. (21-26 October 1990). Structural changes and water flow in stressed sorghum roots, Abstract of paper presented at the Annual Meeting of the American Society of Agronomy.

Moroni, S. and Wade L (2014). Leaf and Root Osmotic Adjustment and Dry Matter Yield of Rice in Response to Water Deficit and Mechanical Impedance to Root Growth, 36th Annual Scientific Meeting, Scientific Poster Session, National Academy of Science and Technology, Philippines held on 9-10 July 2014, Philippine International Convention Center, Manila, Philippines..

Makahiya H.A.F., Corpuz H.M., Romero M.V., Gonzales S.T., Arocena E.C. (2014). Yield Potential and Grain Quality of Irrigated Lowland Rice Varieties with Leaf Color Chart (LCC)-Based Nitrogen Fertilizer Application, 36th Annual Scientific Meeting, Scientific Poster Session, National Academy of Science and Technology, Philippines held on 9-10 July 2014, Philippine International Convention Center, Manila, Philippines.

Bascon M.V.R (2014). Evaluation of Field Techniques for Fertilizer Recommendation in Irrigated Lowland Rice, 36th Annual Scientific Meeting, Scientific Poster Session, National Academy of Science and Technology, Philippines held on 9-10 July 2014, Philippine International Convention Center, Manila, Philippines..

(2013). Crop management for direct-seeded areas in Philippines: requirements and expectations, Inception and Planning Meeting for the Project on "Increasing Productivity of Direct-seeded Rice Areas by Incorporating Genes for Tolerance of Anaerobic Conditions during Germination," 13-14 August 2013, IRRI, Los Baños, Laguna, Philippines.

Bascon MVR (2013). Assessment of Nutrient Diagnostic Techniques for Fertilizer Recommendation for Irrigated Lowland Rice, 22nd FCSSP Scientific Conference. Pearlmont Inn, Cagayan de Oro City, Philippines.

Makahiya HAF and FH Bordey (2013). Estimating the Genetic Coefficients of Irrigated Lowland Rice Varieties through the Decision Support System for Agrotechnology Transfer (DSSAT) to simulate Crop Growth and Potential Yield, 22nd FCSSP Scientific Conference. Pearlmont Inn, Cagayan de Oro City, Philippines.

H.A.F. Makahiya (2013). Yield Potential and Nitrogen Use Efficiency of Irrigated Lowland Rice Varieties through Leaf Color Chart (LCC)-based Nitrogen Management with Varying N-P-K Ratios, 35th Annual Scientific Meeting, Scientific Poster Session, National Academy of Science and Technology, Philippines held on 11 July 2013, Manila Hotel, Manila, Philippines..

(2013). High-Value Products from Rice and Its Environment Program, 26th National Rice R&D Conference. PhilRice, Muñoz, Nueva Ecija, Philippines.

Bascon MVR and HF Makahiya (2012). Evaluation of Nutrient Diagnostic Techniques in relation to Nutrient Use Efficiency and Yield of Irrigated Lowland Rice in Farmer's Fields, 42nd CSSP Scientific Conference. A&A Plaza Hotel, Puerto Princesa City, Palawan, Philippines..

Makahiya HAF and MVR Bascon (2012). Leaf Color Chart (LCC)-based Attainment of Yield Potential, Nitrogen Use Efficiency and Partial Factor Productivity of Irrigated Lowland Rice Genotypes under Varying NPK Ratios, 42nd CSSP Scientific Conference. A&A Plaza Hotel, Puerto Princesa City, Palawan, Philippines.

S. Moroni, R.E. Sharp and L. Wade (2011). Leaf and root osmotic adjustment and dry matter yield in rice in response to water deficit and mechanical impedance to root growth,

International Meeting on the Generation Challenge Project (GCP) on “Targeting Drought-Avoidance Root Traits, 12-16 September 2011, IRRI, Los Baños, Laguna, Philippines.

Regalado MJC (2010). Tillage and crop establishment technologies for improved labor productivity and energy efficiency, and reduced costs in rice production, American Society of Agricultural and Biological Engineers (ASABE), 20-23 June 2010, St. Joseph, Michigan, U.S.A..

(2010). Rice genotypic variation in root growth response to water deficit and mechanical impedance, Seminar Series 24 June 2010, Wagga Wagga Agricultural Institute, EH Graham Center for Agricultural Innovation, Charles Sturt University, New south Wales, Australia.

Quilang EJP, FH Bordey, CA Asis Jr. and ED Alosnos (2010). Rice Situation, PalayCheck System, and Methane Emissions in the Philippines, Workshop on Paddy Field Management and Greenhouse Gases, 1-3 September 2010, Tsukuba, Japan.

Regalado, M.J.C., Ramos, P.S (2009). Development of Tillage and Crop Establishment Technologies for Improved Labor Productivity & Energy Efficiency and Reduced Costs in Rice Production, 20th FCSSP Scientific Conference. Silliman University, Dumaguete City, Philippines.

Lales, J.H. and Corpuz, A.A (2009). System of Rice Intensification: Does It Translate into Increased Yield?, 20th FCSSP Scientific Conference. Silliman University, Dumaguete City, Philippines.

Laureles, E.V., Samson, M.I., San Gabriel, R.C., Suplido, M.E.A.A., Gabinete, G.G. and Buresh, R.J. (2009). Fast-Tracking the Delivery of Improved Nutrient Management Practices to Rice Farmers, 20th FCSSP Scientific Conference. Silliman University, Dumaguete City, Philippines..

Samson, M.I., Castillo, R.L., Sinohin, J.O., Pampolino, M.F., Badayos, R.B., Paningbatan, E.P., Sanchez, P.B. and Buresh, R.J (2009). Science-Based Principles Used to Develop Innovative Tools on Nutrient Management for Rice, 20th FCSSP Scientific Conference. Silliman University, Dumaguete City, Philippines.

Lales, J.H., Suplido, M.E.A.A (2009). Evaluation of the PalayCheck Minus-One Key Check Recommendation, 20th FCSSP Scientific Conference. Silliman University, Dumaguete City, Philippines..

Dela Cruz, I.A., Baldedara, L.S., del Rosarion, C.D., Ablaza, S.M.F., Padolina, T.F., Redoña, E.D. and de Leon, J.C (2009). Development of New Generation of Parental Lines from a High-Yielding Hybrid, 20th FCSSP Scientific Conference. Silliman University, Dumaguete City, Philippines.

Suplido, M.E.A.A. and Espiritu, A.E. (2009). Relationship of Indigenous Nutrient Supply to Fertilizer Recommendation, 20th FCSSP Scientific Conference. Silliman University, Dumaguete City, Philippines.

(2009). System of Rice Intensification (SRI): Does it Increase Grain Yield, 22nd National Rice R & D Conference. PhilRice, Muñoz, Nueva Ecija, Philippines.

G. Gabinete, M.E.A. Suplido, and R.J. Buresh (2008). Accelerating dissemination of improved nutrient management for rice in the Philippines, Irrigated Rice Research Consortium (IRRC) Workshop on Research to Impact: Case Studies for Natural Resources Management of Irrigated Rice in Asia, 23-24 September 2008, Philippine Rice Research Institute, Maligaya, Science City of Muñoz, Nueva Ecija, Philippines.

Samoy, K.C., Cantre, M.A., Corpuz, A.C., de Dios, J.L. and Sibayan, E.B (2008). Controlled Irrigation in Leaf Color Chart-Based and Growth Stage-Based Nitrogen

Management, 38th Annual Scientific Conference of the CSSP, 12-16 May 2008, Iloilo Grand Hotel, Iloilo City, Iloilo, Philippines.

Suplido, M.E.A.A (2008). LCC-Based Nitrogen Management and yield Potential of irrigated Lowland Rice Varieties and Breeding Lines, 38th Annual Scientific Conference of the CSSP. Iloilo Grand Hotel, Iloilo City, Iloilo, Philippines.

Alquiza, P.C., Yadao, A.C., De Peralta, G.C., Baysac, F.S. and Castro, R.C. (2008). Targeting On-Farm Rice Yields in Northwest Luzon through Site-Specific Crop Management, 38th Annual Scientific Conference of the CSSP. Iloilo Grand Hotel, Iloilo City, Iloilo, Philippines..

Ganotisi N.D., Castro R.C., Batuac R.A. and de Peralta, G (2008). The PalayCheck System in San Nicolas, Ilocos Norte, 38th Annual Scientific Conference of the CSSP, Iloilo Grand Hotel, Iloilo City, Iloilo, Philippines.

Manigbas, N.L., Solis, R.O., Barroga, W.V., Noriel, A.J.M., Arocena, E.C. and Padolina, T.F (2008). Seedling Germination and Vigor Under Anoxia: Selection Strategy in Developing Rice Varieties for Direct Wet-Seeded Culture in the Philippines, 38th Annual Scientific Conference of the CSSP. Iloilo Grand Hotel, Iloilo City, Iloilo, Philippines..

(2008). Low-External-Input Rice Production: Does it Translate into Increased Yield? Paper presented in the Farmers' Forum, 38th Annual Scientific Conference of the CSSP. Iloilo Grand Hotel, Iloilo City, Iloilo, Philippines.

Cantre, M.A.T., J.L De Dios, M.D. Malabayabas and E.B. Sibayan (2007). Water Use Efficiency of Promising Lines and Popular Rice Varieties under Irrigated Lowland System, 19th Scientific Conference of the FCSSP. 13-15 June 2007, Development Academy of the Philippines, Tagaytay City, Philippines.

Malabayabas, M.D., C.A. Adeva and T.F. Padolina (2007). Yield and Nitrogen Use Efficiency of Promising Lines and Popular Lowland Rice Varieties, 19th Scientific Conference of the FCSSP 13-15 June 2007, Development Academy of the Philippines, Tagaytay City, Philippines.

Suplido, M.E.A.A., S.D. Manalo, J.M. Rivera and E.F. Javier (2007). LCC-Based Attainment of Yield Potential of Commercial Hybrids and Popular Inbred Rice Varieties in Transplanted Irrigated Lowland Rice System, 19th Scientific Conference of the FCSSP. Development Academy of the Philippines, Tagaytay City, Philippines.

Bautista, E.G., E.B. Sibayan and M.J.C. Regalado (2007). The Effect of Different Land Preparation Practices on the Growth and Yield of Mechanically Transplanted Rice, 19th Scientific Conference of the FCSSP. Development Academy of the Philippines, Tagaytay City, Philippines.

Batay-an, E.H., R.T. Tabudlong, F. dela Peña (2007). Management of White Stem Borer, *Scirpophaga innotata* Walkers through Augmentative Release of Predatory Spider for Various Rice Cultivars, 2007. 19th Scientific Conference of the FCSSP. Development Academy of the Philippines, Tagaytay City, Philippines.

Torreña, R.S., E.M. Valdez, M.S. Casimero, M.A.S. Manalo. and T.H. Xuan (2007). Nutrient Balance and Disease Interaction in Irrigated Lowland Rice Ecosystem, 20th National Rice R & D Conference. Muñoz, Nueva Ecija, Philippines.

Rivera, J.M. and E.F. Javier (2007). Efficacy Test of Popular Foliar Fertilizers in Irrigated Lowland Rice, 20th National Rice R & D Conference. Muñoz, Nueva Ecija, Philippines.

Suplido, M.E.A.A., S.D. Manalo, J.M. Rivera and E.F. Javier (2007). LCC-Based Attainment of Yield Potential of Commercial Hybrid and Popular Inbred Rice Varieties in Transplanted Irrigated Lowland Rice System, 20th National Rice R & D Conference.

Muñoz, Nueva Ecija, Philippines.

Corpuz A.A., J.L. De Dios, H.C. Gines and L.S. Sebastian (2007). Evaluation of System Rice Intensification (SRI), Growth Stage-Based Nutrient Management (GS-NM) and LCC-Based Nutrient Management (LCC-NM) Technologies, 20th National Rice R & D Conference. Philrice, Muñoz, Nueva Ecija, Philippines.

(2007). Towards the Commercialization of the PalayCheck System for Integrated Lowland Rice, 20th National Rice R & D Conference. PhilRice, Muñoz, Nueva Ecija, Philippines.

Manalo, S.D., R.F. Tabalno, R.C. San Gabriel, M.C. Parungao and R.S. Gopez (2006). PalayCheck System Improves Rice Yields in farmers' Fields in Nueva Ecija, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Bastasa, D.B., Z.M. Palo, T.F. Padolina, T. Takita, E.H. Batay-an, A.B. Estoy and C.J.M. Tado (2006). Rice Varietal Screening for Location-Specific Adaptability in Caraga, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Malabayabas, M.D. (2006). Yield Response of Popular and Recently-Released Rice Varieties to Nitrogen Fertilizer Management, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Espiritu, A.E., S.D. Manalo (2006). Assessing the Soil Nutrient supply of Irrigated Lowland Soil, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Llanto, G.P., K.E.T. Barroga, F.H. Bordey and E.D. Redoña (2006). Palaycheck: The Philippines' Rice Integrated Crop Management System, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Llanto, G.P., K.E.T. Barroga, F.H. Bordey and E.D. Redoña (2006). Palaycheck: The Philippines' Rice Integrated Crop Management System, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Ganotisi, N.D., R.C. Castro, E.D. Redoña, J.M. Maloom, M.U. Castro, A.T. Camungao, E.R. Cabulay, K.E.T. Barroga and L.S. Sebastian (2006). Strengthening the Development and Use of Rice Integrated Crop Management for Food Security and Poverty Alleviation: The PalayCheck System, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Ganotisi, N.D., R.C. Castro, E.D. Redoña, J.M. Maloom, M.U. Castro, A.T. Camungao, E.R. Cabulay, K.E.T. Barroga and L.S. Sebastian (2006). Strengthening the Development and Use of Rice Integrated Crop Management for Food Security and Poverty Alleviation: The PalayCheck System, 36th Scientific Conference of the CSSP. May 8-12, 2006, Legend Hotel, Puerto Princesa City, Palawan, Philippines.

Cantre M.A.T., A.A. Corpuz, J.L. de Dios, E.B. Sibayan (2006). Optimizing Water Productivity in Irrigated Lowland Rice System, 20th National Rice R & D Conference. Muñoz, Nueva Ecija, Philippines.

Cantre M.A.T., M.D. Malabayabas, J.L. de Dios and E.B. Sibayan (2006). Water Productivity and Water Use Efficiency of Promising Lines and Popular Rice Varieties under Irrigated Lowland Rice System, 20th National Rice R & D Conference. Muñoz, Nueva Ecija, Philippines.

Malabayabas, M.D. (2005). Yield potential and nitrogen fertilizer use efficiency of popular and newly-released rice varieties, 18th Scientific Conference of the FCSSP. Cagayan de Oro City, Philippines.

Decalsota, J.P., C.P. Mamaril, M.B. Peralta, I. DG Olvida. (2005). Minus-one element technique for aerobic soils: development and testing, 18th Scientific Conference of the FCSSP. 2-6 May 2005, Cagayan de Oro City, Philippines.

Espiritu, A.E. and S.D. Manalo (2005). Assessing the soil nutrient supply of irrigated lowland rice field, 18th Scientific Conference of the FCSSP. Cagayan de Oro City, Philippines.

Batay-an, E.H., A.A. Ortiz and A.B. Estoy (2005). Comparison of the different management practices for white stemborer in agusan del norte, 18th Scientific Conference of the FCSSP. Cagayan de Oro City, Philippines.

Llanto, G.P., A. P. Castro, E.H. Bordey, K.T. Barroga, L.S. Sebastian and E. D. Redoña (2005). Palaycheck: the Philippine rice integrated crop management system, 18th Scientific Conference of the FCSSP. Cagayan de Oro City, Philippines.

Corpuz, A.A., H.C. Gines and L.S. Sebastian (2005). Evaluation of SRI, SSNM and CSNM technologies, 18th Scientific Conference of the FCSSP. 2-6 May 2005, Cagayan de Oro City, Philippines.

Pasuquin, E.M., S.D. Manalo and T. La Farge (2005). Broadcasting at low seed rates as a performance technology for newly selected rice genotypes under wet direct seeding, 18th Scientific Conference of the FCSSP. Cagayan de Oro City, Philippines.

Regalado, M.C., A.S. Juliano, L.B. Moliñawe and J. A. Ramos (2005). Development of ride-on floating tiller for "laboy" soils, 18th Scientific Conference of the FCSSP. Cagayan de Oro City, Philippines.

Avellanoza, E.S., E. Evangelista, A.A. Alfonso, R. Espiritu, M M. Resano, R.R. Aldemita, M.I. Revita, N.S. Garcia, D. Galam, J. Rillon, R. Miranda and J. Nilo (2005). Transfer of transgenes for tolerance to abiotic stresses and increased resistance to fungal diseases into rice, *Oryza sativa* L, 18th Scientific Conference of the FCSSP. Cagayan de Oro City, Philippines.

Justo, J.E., E.C. Arocena, M.C. Julaton and T.F. Padolina (2005). Adaptability of diverse irrigated lowland rice selections under maligaya conditions, 18th Scientific Conference of the FCSSP. 2-6 May 2005, Cagayan de Oro City, Philippines.

Manalo, S.D., C.A. Mabayag, R.S. Escabarte Jr. and F.I. Ysulat (2005). Targeting on-farm rice yields through site-specific nutrient management, 18th Scientific Conference of the FCSSP. 2-6 May 2005, Cagayan de Oro City, Philippines.

Manalo, S.D., R.F. Tabalno, M.C. Parungao and R.C. San Gabriel (2005). Palaycheck system improves crop productivity, 18th Scientific Conference of the FCSSP. 2-6 May 2005, Cagayan de Oro City, Philippines.

Arocena, E.C, V. P. Luciano, M.C. Julaton, J.A. Orcino, G.M. Osoteo, Y.A Diamaano, T.F. Padolina, J.E. Justo, J. F. Parinas, V. M. Alata, T.A. Alegado, H.C. dela Cruz Jr., J.P. Rillon, G.C. Santiago, U.G. Duque, E.H. Bandonill and R.E. Tabien (2005). Modern type red glutinous rice recommended for NSIC approval, 18th Scientific Conference of the FCSSP. 2-6 May 2005, Cagayan de Oro City, Philippines.

J.L. de Dios and G.C. Cataquiz (2004). Integrated Crop Management (ICM) for Saving Water, Fertilizer and Labor in Irrigated Lowland Rice, Abstracts of paper presented at the 35th Annual Scientific Meeting of the CSSP. 8-12 March 2004, Lanang, Davao City, Philippines.

Javier, E.F. and E.J.P. Quilang (2004). Spatial analysis of nutrient management of the technology adaptation project (TAP) in the Philippines, 17th Annual Meeting & Symposium of the Philippine Society of Soil Science & Technology, Inc. 20-21 May 2004,

Benguet State University, La Trinidad, Benguet, Philippines.

(2003). The Transplanted Irrigated Lowland Rice Program, 16th National Rice R&D Conference, 31 March-2 April 2003, Muñoz, Nueva Ecija, Philippines.

(2003). Site-specific crop management updates in Agusan del Norte, Workshop on the Nutrient Management Research for the Rice R&D Network. San Lorenzo Ruiz, Ampayon, Butuan City, Philippines.

J.L. De Dios and G.C. Cataquiz (2003). Integrated Crop Management (ICM) Technologies for Saving Water, Fertilizers, and Labor, Maximizing Impact of Agricultural Innovation Systems on Rice Production: A Policy Dialogue. PhilRice, Muñoz, Nueva Ecija, Philippines.

Balasubramanian, V. A.C. Morales, N.N. de, P.S. Tan, Hla Tin and Z. Zaini (2000). Leaf Color Chart (LCC): A simple and inexpensive decision tool for real-time nitrogen management in rice, Abstracts of paper presented at the 30th Annual Scientific Meeting of the CSSP, May 2000, Batac, Ilocos Norte, Philippines.

Manalo, S.D. (20-21 May 2004). Site-specific nutrient management (SSNM) for increasing rice yield and fertilizer use efficiency, 17th Annual Meeting & Symposium of the Philippine Society of Soil Science & Technology, Inc. Benguet State University, La Trinidad, Benguet, Philippines.

Collado, W.B., J.P. Quilang, A.A. Corpuz, A.C. Morales, F.M. Malabanan and V. Balasubramanian (1998). Rice Variety Differences in Leaf color Chart Reading, FCSSP Annual Meeting, Cebu City, Philippines.

Corpuz A.A., J.L. de Dios, E.S. Redoña and S.R. Obien (1998). Management Practices to Maximize Yield of Irrigated Lowland Rice, FCSSP Annual Meeting, Cebu City, Philippines.

De Dios J.L., A.A. Copruz, E.S. Punzalan and J.P. Quilang (1998). Intermittent Irrigation and Yield of Transplanted Lowland Rice, FCSSP Annual Meeting, Cebu City, Philippines.

Pamplona R.R. (1997). Modeling the Growth and Yield of Rice for Breeding Strategies, FCSSP Annual Meeting, Baguio City, Philippines.

De Dios, J.L., A.A. Corpuz, W.C. Cosico, H.P. Samonte and R.P. Robles (1997). Dynamics of Phosphorus Availability in Maligaya Clay Soils, FCSSP Annual Meeting, Baguio City, Philippines.

Garcia, F.D. and W.N. Obcemea (1997). Inorganic and Organic Fertilizers for Lowland Rice: Effect on Soil Available Nitrogen and Grain Yield, FCSSP Annual Meeting, Baguio City, Philippines.

Quilang, J.P. (1997). Evaluation of Manage-N Model for Nitrogen Optimization, FCSSP Annual Meeting, Baguio City, Philippines.

Morales, A.C., V.B. Balasubramanian and P. Casayuran (1997). On-Farm Evaluation and Adaptation of Chlorophyll Meter-Based N Management in Rice Systems, FCSSP Annual Meeting, Baguio City, Philippines.

Collado, W.B., J.P. Quilang, P.R. Casayuran, A.A. Corpuz, R.S. Torres, A.C. Morales, V.B. Balasubramanian and F.M. Malabanan (1997). Leaf Color Chart Technology for the Rice Farmer, FCSSP Annual Meeting, Baguio City, Philippines.

Garcia, F.D., and W.N. Obcemea (1996). Influence of Organic and Inorganic Fertilizers on Yield of Irrigated Lowland Rice, FCSSP Annual Meeting, Davao City, Philippines.

Prudente, J.A., T.M. Corton, and T. Motomatsu (1996). Assessing Soil Nitrogen by Biological and Chemical Methods, FCSSP Annual Meeting, Davao City, Philippines.

Pamplona, R.R., C.L. Tayag, N.V. Zulueta and J.A. Prudente (1996). Rice Leaf Tissue Analysis Using Near Infrared Reflectance, FCSSP Annual Meeting, Davao City, Philippines.

Calendacion, A.N., J.P. Quilang and L.J. Wade (1996). Replaceability of Nutrients and Water in the Rainfed Lowland Rice Ecosystem of Central Luzon, FCSSP Annual Meeting, Davao City, Philippines.

R.R. Pamplona (1996). Predicting Yields of PSB Rice Cultivars at Different Nitrogen Levels, FCSSP Annual Meeting, Davao City, Philippines.

(1995). Nitrogen Recommendation to Irrigated Rice in the Philippines, International SARP Workshop on Optimization of Nitrogen Fertilizer Application to Irrigated Rice.

Aragones, D.V., P.R. Casayuran and M. Yamauchi (1995). Yield and Lodging Resistance of Anaerobic Tolerant Rice Genotypes under Different Crop Establishment Methods, FCSSP Annual Meeting, Siliman University, Dumaguete City, Philippines.

Willauer, J.L. and R.R. Valdez (1995). Nitrogen Use Efficiency and Grain Yield of Lowland Rice Cultivars, FCSSP Annual Meeting, Siliman University, Dumaguete City, Philippines.

R.R. Pamplona (1995). Potential Rice Yield Using ORYZA1 Model, FCSSP Annual Meeting, Siliman University, Dumaguete City, Philippines.

Woodhead, T., E.M. de San Agustin, S.G. Maghari, C.G. Ante and M.E. Tenedora (1985). Agrohydrology of upland rice, A poster abstract presented at the International Rice Research Institute Conference on Soil Physics and Rice. Los Baños, Laguna, Philippines.

E.L. Aragon, J.C. O'Toole and S.K. De Datta (1984). Lodging in Wetland Rice: Grain Yield Reduction, Measurement Technique and the Influence of Applied Nitrogen, Abstracts of paper presented at the 15th Annual Scientific Meeting of the CSSP, 16-18 May 1984, Batac, Ilocos Norte, Philippines.

E.L. Aragon, J.C. O'Toole and S.K. De Datta (1984). Lodging in Wetland Rice: Grain Yield Reduction, Measurement Technique and the Influence of Applied Nitrogen, Abstracts of paper presented at the 15th Annual Scientific Meeting of the CSSP, 16-18 May 1984, Batac, Ilocos Norte, Philippines.

R. P. Novero, D. P. Garrity and J. C. O'Toole (1983). Determination of Crop Water Stress in Rice by Infrared Thermometry, Abstracts of paper presented at the 14th Annual Scientific Meeting of the CSSP, May 1983, Los Baños Laguna, Philippines.

R. P. Novero, D. P. Garrity and J. C. O'Toole (1983). Determination of Crop Water Stress in Rice by Infrared Thermometry, Abstracts of paper presented at the 14th Annual Scientific Meeting of the CSSP, May 1983, Los Baños Laguna, Philippines.

J.C. O'Toole (1980). Water Stress and Aspects of Reproductive Growth in Rice, Abstracts of paper presented at the 11th Annual Scientific Meeting of the Crop Science Society of the Philippines (CSSP).

(18-21 February 2003). Philippines: Drought-prone lowland research needs, opportunities, and potential partners, International Meeting of the Consortium for Unfavorable Environments (CURE).

W.R. Jordan, and M.C. Drew (14-22 July 1992). Hydraulic conductance of sorghum roots following exposure to water deficit and rewetting, International Crop Science Congress.

O'Toole, J.C., F.P. Whisler and A. Chinchest (14-19 November 1983). Validation tests of RICEMOD, Abstract of paper presented at the Annual Meeting of the American Society of Agronomy,.

(1 August 2007). PalayCheck System of rice integrated crop management, Sichuan Academy of Agricultural Sciences.

## Publications

- 2002 Questions and Answers on Integrated Nutrient Management. Series No. 04. PhilRice, Muñoz, Nueva Ecija, Nov. 2002.
- 1999 Yamauchi, M., D.V. Aragonés, P.R. Casayuran, T. Winn, P.C. Borlagdan, A.M. Aguilar, C.A. Asis, P.C. Sta. Cruz and G.R. Quick Rice anaerobic direct seeding in the tropics. International Workshop on Constraints, Opportunities, and Innovations for wet-seeded rice, May to June 1999.
- 1997 Casimero, M.C. and S.R. Obien Weed management in wet-seeded rice in the Philippines. International Workshop on Constraints, Opportunities, and Innovations for wet-seeded rice, May to June 1997.
- 2007 Venkataraman S. and S. Steinmetz Agrometeorology and Rice Production. Chapter 13 of WMO/AgM Guide to Agricultural Practices. International Society for Agricultural Meteorology (INSAM), May 2007.
- 2005 Regalado M.J.C., A.S. Juliano, L.B. Moliña and J.A. Ramos Development of a ride-on floating tiller for laboy soils. Phil. J. Crop Science Vol. 30, May 2005.
- 1998 Balasubramanian, V and A.C. Morales Chlorophyll meter threshold values for N management in direct wet-seeded irrigated rice. National Workshop on CREMNET Program in India, Directorate of Rice Research, January 1998.
- 2012 Wade L.J., J. Siopongco, S. Moroni, B.K. Samson and T. Acuna Assessing root penetration ability and resource capture from deeper soil layers. In: H.E. Shashidhar, A. Henry and B. Hardy (eds). Methodologies for root drought studies in rice. Los Baños (Philippines): International Rice Research Institute, 2012.
- 2012 Bascon MVR Evaluation of nutrient diagnostic techniques based on yield and nutrient-use efficiency of rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2012.
- 2012 Yield potential, nitrogen-use efficiency and grain quality of irrigated lowland rice varieties. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2012.
- 2012 Makahiya HAF and FH Bordey The use of Decision Support System for Agrotechnology Transfer (DSSAT) rice crop model to evaluate the potential yield of irrigated lowland rice under different nutrient management levels and climate types in the Philippines. I. Nueva Ecija (Type II climate). Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2012.
- 2012 Makahiya HAF and FH Bordey The use of Decision Support System for Agrotechnology Transfer (DSSAT) rice crop model to evaluate the potential yield of irrigated lowland rice under different nutrient management levels and climate types in the Philippines. I. Nueva Ecija (Type II climate). Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2012.
- 2012 MVR Bascon and MJC Regalado Ratooning ability of irrigated lowland rice: response to water and nitrogen management for two rice genotypes under transplanted system. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2012.
- 2012 MVR Bascon and MJC Regalado Ratooning ability of irrigated lowland rice: response to water and nitrogen management for two rice genotypes under transplanted system. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2012.

- 2012 Rice Ratooning. Department of Agriculture-National Rice Program, National Irrigation Administration and Philippine Rice Research Institute (PhilRice)., 2012.
- 2011 Bascon MVR, HF Makahiya and AE Espiritu Evaluation of indigenous soil nutrient supply and current nutrient diagnostic tools in irrigated lowland rice system. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2011.
- 2011 Makahiya HAF Leaf color chart (LCC)-based attainment of yield potential and nitrogen-use efficiency of irrigated lowland rice genotypes under varying N-P-K ratios. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2011.
- 2010 Lales JH and AA Corpuz The comparison of system of rice intensification, leaf color chart-based nitrogen management, and growth stage-based nitrogen for yield and ROI. Phil. J. of Crop sci, 2010.
- 2009 Dela Cruz IA, L.S. Balledara, S.M.F. Ablaza, C.D. del Rosario, T.F. Padolina, E.D. Redoña, M.C. Casimero, L.S. Sebastian, and J.C. de Leon Developing new-generation restorer lines for high yield heterosis. In: F. Xie F and B. Hardy (eds). Accelerating Hybrid Rice Development. Los Baños (Philippines): International Rice Research Institute, 2009.
- 2008 Manigbas NL, RO Solis, WV Barroga, AJ Noriel, EC Arocena and TF Padolina Development of screening methods for anaerobic germination and seedling vigor in direct wet-seeded rice culture. Phil. J. of Crop sci, 2008.
- 2008 J.L. De Dios, J.A. Manalo IV, M.J.M. Mariano and L.S. Sebastian State-of-the-Art Research and Development on the Interface among Rice Production, Water and Forests.. K.A. Gomez et al. (eds). Asia Rice Foundation Conference, Los Baños, Laguna, Philippines. Island Publishing, Manila, Philippines, 2008.
- 2008 CA Asis Jr. and MEA Suplido Leaf Color Chart (Revised Edition). Rice Technology Bulletin No. 22, Philippine Rice Research Institute (PhilRice), Muñoz, Nueva Ecija, Philippines, 12 p, 2008.
- 2007 Regalado M.J.C., A.S. Juliano, L.B. Moliña and J.A. Ramos Re-engineered floating tiller: key to reduced drudgery and improved productivity in deep-mud areas. Phil. Agric. Eng. J, 2007.
- 2007 PalayCheck System for Irrigated Lowland Rice. A PhilRice-FAO Publication, Muñoz, Nueva Ecija, Philippines, 91p, 2007.
- 2007 Alfonso AA, ES Avellanosa, JP Rillon, MS dela Cruz, TF Padolina and DS Brar. Alien gene transfer for resistance to stem borer and sheath blight in rice.. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Tabanao, DAA, JGV Godoy and MD Malabayabas Molecular marker to assess nitrogen use efficiency in rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Regalado MJC and PS Ramos Influence of tillage and crop establishment methods on rice crop yield, labor productivity, and energy efficiency. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Bautista EG, JEP dela Torre, CA Asis, Jr., MJC Regalado and EB Sibayan Influence of different land preparation practices on soil nutrient status. Growth, and yield of transplanted rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Cantre MAT and MJC Regalado Evaluation of crop establishment methods and nitrogen management for direct wet seeded inbred and hybrid rice varieties and promising

- lines. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Samoy KC, MAT Cantre, AA corpus and JL de Dios Optimizing water productivity in irrigated lowland rice systems. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Cantre MAT, JL de Dios and TF Padolina Water use efficiency of GYT lines under different irrigation schemes. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Suplido MEAS LCC-based attainment of yield potential of commercial hybrids and popular inbred rice varieties in transplanted irrigated lowland rice systems. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Malabayabas, MD, CC Adeva and TF Padolina Agronomic and physiological N use efficiencies and yield potentials of promising lines and popular rice varieties. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Espiritu AE and SD Manalo Assessing indigenous nutrient supply from selected NCT and PalayCheck Sites. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Babiera VV and WB Collado Rice farmersâ€™ diagnostic guide to soil fertility, crop suitability, and productivity evaluation. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Bandonill EH, MJC Regalado, DV Aquino, PA Tibayan, HF Mamucod, J dela Cruz and RD Camus Effects of crop management, variety, harvest time, and moisture content on fissure occurrence, milled and head rice yields. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2007 Batay-an EH and RL Tabudlong Efficiency of predatory spiders in the management of white stem borer for various rice cultivars. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2007.
- 2006 Bastasa D.B., T.F. Padolina, T. Takita, Z.M. Palo, A.B. Estoy and C.J.M. Tado Development of location-specific rice varieties for Caraga Region. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Maningbas N.L., R.O. Solis, E.P. Rico, W.V. Barroga and E.C. Arocena Development of direct-wet seeded rice varieties with high yield resistance to pests and good grain quality (PhilRice CES). Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Regalado M.J.C. and P.S. Ramos Influence of tillage and crop establishment methods, water level and variety on rice crop yield and input use efficiency. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Bautista E.G., E.B. Sibayan and M.J.C. Regalado The effect of different land preparation practices on the growth and yield of mechanically transplanted rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Manalo S.D. and M.J.C. Regalado Evaluation of crop establishment methods and nutrient status for direct wet-seeded inbred and hybrid rice varieties and promising lines. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Cantre M.A.T., A.A. Corpuz, J.L. de Dios and E.B. Sibayan Optimizing water productivity in irrigated lowland rice system. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.

- 2006 Cantre M.A.T., M.D. Malabayabas, J.L. de Dios and E.B. Sibayan Water use efficiency of promising lines and popular rice varieties under irrigated lowland rice system.. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Manalo S.D. and R.F. Tabalno Targeting on-farm rice yield through site-specific crop management in Llanera, Nueva Ecija. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Manalo S.D., J.M. Rivera and E.F. Javier LCC-based attainment of yield potential of commercial hybrid and popular inbred rice varieties in transplanted irrigated lowland rice system. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Corpuz A.A., C.A. Asis Jr., H.C. Gines, J.L. De Dios and L.S. Sebastian Evaluation of system rice intensification (SRI), growth stage-based nitrogen management (GS-NM) and leaf color chart-based nitrogen management (LCC-NM) technologies. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Malabayabas M.D., C.C. Adeva and T.F. Padolina Yield, N, P and K use efficiencies of promising lines and popular rice varieties. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Alquiza P.C., F.S. Baysac, G.C. de Peralta and R.C. Castro Targeting on-farm rice yields in Northwest Luzon through site-specific crop management. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Varquez F.L. and M.J. Osano Targeting on-farm rice yields through site-specific nutrient management in Agusan Del Norte. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Buhat J.N.M., G.V. Romarez, R.S. and Escabarte Jr. Targeting on-farm rice yield through site specific crop management (SSCM) in North Cotabato and Sultan Kudarat. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Espiritu A.E. and S.D. Mariano Assessing indigenous nutrient supply from selected NCT and Palaycheck sites. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Babiera V.V., W.B. Collado and M.R. Obico Rice farmersâ€™ guide to soil fertility, crop suitability and productivity evaluation in irrigated lowland rice system. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Bandonill E.H., M.J.C. Regalado, D.V. Aquino, P.A. Tibayan, H.F. Mamucod, J. dela Cruz, R.D. Camus and E.F. Javier Effect of crop management, variety, harvest time and moisture content on fissure occurrence, milled and head rice yields. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Batay-an E.H., J.B. Culliao, A.A. Ortiz, A.B. Estoy and F.A. Dela Peña Population patterns and management of white stem borer in farmersâ€™ fields in Agusan Del Norte and North Cotabato. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Batay-an E.H., R.L. Tabudlong and F.A. dela Peña Management of white stem borer, *Scirpophaga Innotata* Walker through augmentation release of predatory spiders for various rice cultivars.. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.
- 2006 Batay-an E.H., J.B. Culliao and F.A. dela Peña Population patterns and parasitism of rice black bug in direct wet-seeded and transplanted rice environments in farmersâ€™ fields in Agusan.. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2006.

- 2005 Lorenzana, R.E., T.F. Padolina, H.C. Dela Cruz Jr., E.C. Arocena, Y.A. Dimaano, G.M. Osoteo, J.A. Orcino, J.E. Justo, H. R. Rapusas, G.C. Santiago, M.S. dela Cruz, J.P. Rillon, U.G. Duque, S.E. Alvaran, R.V. Manaois, E.M. Evangelista, L.M. Gaspar, L.T. Roferos, B.D. Juliano, M.C. 16 Abalos, M.C. Fajardo, G.M. Babb, J.C. Duque, R.C. San Gabriel, V.C. Lapitan, N.V. Desamero, E.R. Tiongco, A.A. Alfonso, E.S. Avellanoza, D.B. Bastasa and EB Cayaban Jr., D.J. Lalican and SH. Escamos, (UPLB) Development of inbred varieties. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2005.
- 2005 Alabayabas M.D., A.E. Espiritu, S.D. Manalo, and J.P. Descalsota, M.T.B. Peralta and C.P. Mamaril (PhilRice Los Baños); P.C. Alquiza, R.C. Castro, F.S. Bayase, and L.A. Ildefonso (PhilRice Batac) Development of a crop nutrient-water management protocol. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2005.
- 2005 Rillon G.S., H.R. Rapusas, T.H. Xuan, R.D. Garcia, L.V. Marquez and E.H. Batay-an, A. A. Ortiz, and A.B. Estoy (PhilRice Agusan). Development of IPM for rice pests. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2005.
- 2005 S.D. Manalo, M.J.C. Regalado, S.D. Cañete, A.S. Juliano and R.F. Tabalno Village-level integration of lowland rice technologies in San Luis, Aurora. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2005.
- 2005 S.D. Manalo, R.F. Tabalno, and R.C. San Gabriel (PhilRice CES); C.A. Mabayag (PhilRice Agusan); R.S. Escabarte Jr. and G.V. Romarez (PhilRice Midsayap); M.C. Bautista and M.C. Parungao Site-specific crop management (SSCM). Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2005.
- 2005 Pag-abot sa Luntiang Pangarap. Palay Aliwan. Komiks sa Pagpapalayan ng Philippine Rice Research Institute (PhilRice). Vol 2 (1): 1-12, 2005.
- 2004 Casiwan, C.B., G. Redondo, R. San Gabriel, R.E. Tabien, R.G. Manalili, R. Tabalno, L. Esmundo and E. Hermenegildo Socioeconomic and technological profile of Barangay Bacong. PhilRice Technical Bulletin, Vol. 8 (1): 53-63, Muñoz, Nueva Ecija, Philippines, 2004..
- 2004 Mamaril, C. P. The Medium: Soil and Water. Philippine Rice Centennial: Research and Development. Vergara, Benito S., ed. Muñoz, Nueva Ecija: Philippine Rice Research Institute, 2004.
- 2004 Siband, P., C. Witt, H.C. Gines and G.C. Simbahan Yield formation analysis of irrigated rice: characteristics of cultivars and on-farm crop diagnosis. Enfield, N.H. (USA) and Los Baños (Philippines): Science Publishers, Inc., and International Rice Research Institute (IRRI), 2004.
- 2004 Dela Cruz Jr., H.C., T.F. Padolina, Y. A. Dimaano, G.M. Osoteo, J.A Orcino, C. Garcia, J.E. Justo, M.C. Julaton, MGM Babb, M.C. Abalos, M.P. Fernando, R. C. San Gabriel, J.C. Duque, A.A Alfonso, E.S. Avellanoza, M.S. Revita, M.M Rosario, H.R. Rapusas, G.C. Santiago, J.P. Rillon, A.E. Villanueva, U.G. Duque, A.R. Martin, T.M. Masayao, E.M. Evangelista, S.H. Escamos, L.T. Referos and B.O Juliano Development of inbred varieties. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2004.
- 2004 Malabayabas, M.D., C.A. Santin and W.B. Collado, J.P. Decalsota, M.T.B. Peralta, C.P. Mamaril, R.M. Lawas, N.O. Gecolea and M.M. Movillon Development of a crop nutrient-water management protocol. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2004.
- 2004 Rillon, G.S., R.D. Garcia, H.R. Rapusas, T.H. Xuan, L.V. Marquez, E.H. Batay-an, A.A. Ortiz and AB Estoy Development of IPM for stem borers, black bugs and golden apple

- snails. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2004.
- 2004 San Gabriel, R.C. C.B. Casiwan, G.O. Redondo, G.S. Rillon, A.S. Juliano, R.F. Tabalno, R.C. Joshi, M.J.C. Regalado, R.J.P. Laguna, E.S. Herminigildo and L.A. Esmundo Village-level integration of lowland rice technologies in "œlaboy" areas of San Luis, Aurora.. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2004.
- 2004 C.A. Mabayag, R.S. Escabarte Jr. and F.I. Ysulat Targeting on-farm rice yields through site-specific crop management with emphasis on nitrogen fertilizer use in farmers' field. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2004.
- 2004 Malabayabas, M.D. R.G. Corales, M.C. Casimero, W.B. Collado, G.S. Rillon, E.C. Martin, E. Marquez, R. Marquez, J.B. Lasquite, R.S. Escabarte, S. Abdullah, E.B. Tabelin, G.M. Pablo, A. Almendras, R. Serohiyos, G. Asuncion and R. Bayugan Diversifying land use for the uplands. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2004.
- 2004 Auxtero, T.B., J. Juliano, R.G. Manalili, B.D. Tadeo, A.B. Estoy, E.H., Banta-yan, A.D. Catli, A.A. Ortiz, E.M. Libetario, E.P. Dumaog, J.S. Goson, R.J. Kamisola, C.A Mabayag, Z.M. Pablo and L.C. Javier Crop nutrient and pest management strategies. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2004.
- 2004 Corpuz-Arocena, E. R., R.G. Abilgos-Ramos, V.P. Luciano, J.E. Justo, R.V. Manaois, G.DG. Garcia, S.P. Escubio, M.N. Julaton, A.A. Alfonso, T.F. Padolina, L. S. Sebastian, R.E. Tabien and H.C. dela Cruz Jr Breeding for Micronutrient-dense Rice in the Philippines. PhilRice Technical Bulletin, Vol. 8 (2): 1-7, Muñoz, Nueva Ecija, Philippines, 2004.
- 2003 H.C. Gines, WB Collado, R.S. Escabarte Jr., F.I. Ysulat, AJ Pajarito, A.T. Montecalvo and C.A. Mabayag Development of inbred varieties. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2003.
- 2003 Grospe, F.S., and E.F. Javier On-farm trial on zinc amelioration techniques for zinc-deficient areas of Bambang, Nueva Ecija. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2003.
- 2003 Collado, W.B Verification of fertilizer management recommendation for target rice yields of PhilRice CES. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2003.
- 2002 Motomatsu, T., T.M. Corton, F.D. Garcia and J.A. Prudente Improvement of nitrogen fertilization for selected rice varieties transplanted in lowland condition. PhilRice Technical Bulletin, Vol. 6: 64-73, Muñoz, Nueva Ecija, Philippines, 2002.
- 2002 Yoshida, K., T. Motomatsu, T.M. Corton, and J.A. Prudente Assessing soil nitrogen fertility by biological and chemical methods. PhilRice Technical Bulletin, Vol. 6: 74-80, Muñoz, Nueva Ecija, Philippines, 2002.
- 2002 Yoshida, K., M.C. Casimero, R.T. Cruz, P.C., T.M. Corton, W.B. Collado, F.D. Garcia, R.R. Valdez and J.A. Prudente Characterizing yield, nitrogen fertilizer use and efficiency, and climatic conditions of the rice producing areas of the Philippines. PhilRice Technical Bulletin, Vol. 6: 87-98, Muñoz, Nueva Ecija, Philippines, 2002.
- 2002 Yoshida, K., M.C. Casimero, P.C. Sta Cruz, T.M. Corton, W.B. Collado, F.D. Garcia, R.R. Valdez and J.A. Prudente Growth response of rice (*Oryza sativa* L.) to different nitrogen levels and transplanting dates. PhilRice Technical Bulletin, Vol. 6: 99-103, Muñoz, Nueva Ecija, Philippines, 2002.
- 2002 Yajima, M., T.M. Corton and W.B. Collado Modelling developmental processes of the rice

- plant. PhilRice Technical Bulletin, Vol. 6: 104-109, Muñoz, Nueva Ecija, Philippines, 2002.
- 2002 Integrated Nutrient Management for Rice Production. Rice Technology Bulletin No. 45. PhilRice, Muñoz, Nueva Ecija, 2002.
- 2000 Yamauchi M, D.V. Aragonés, P. R. Casayuran, P C. Sta Cruz and C. A. Asis Jr. Seedling establishment and grain yield of tropical rice sown in puddled soil. Agron J, 2000.
- 2000 Malabayabas, M.D. Rebong II, A.A Corpuz and R.O. Soils Nutrient use efficiency (NUE) of the new plant type (NPT) and common inbred varieties. Rice R&D Highlights 1999, 2000.
- 2000 Rebong, D.B. II, M.D. Malabayabas and R.A. Caldo Growth and yield of NPT line IR66 160-121-4-1-1 and common inbred varieties. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 2000.
- 2024 S.R. Serrano, M.C. Casimero, P.R. Casayuran and S.R. Obien Direct seeding technology in the Philippines. International Workshop on Management of Clay Soils in Rainfed Lowland Rice-Based Cropping Systems. Australian Center for International Agricultural Research (ACIAR) Workshop held at Bureau of Soil and Water Management, Quezon City, Manila, 20-24 November 1995.
- 1999 Balasubramanian, V., A.C. Morales and S. Abdulrachman On-farm adaptation of knowledge-intensive nitrogen management technologies in rice systems. Nutrient Cycling in Agroecosystems, Kluwer Publishers, Netherlands, 1999.
- 1999 H.C. Gines Reversing trends of declining productivity in intensive irrigated rice systems. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Javier, E.F. Integrated nutrient management in irrigated lowland rice.. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Corpuz, A.A., J.L. De Dios and M.D. Malabayabas Yield and nutrient-use efficiency of inbred and hybrid rices. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Collado, W.B. Assessing leaf nitrogen status with the leaf color chart. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Javier, E.F. Direct-seeded rice establishment and nitrogen management.. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Collado, W.B. and S. Furuya Seedling establishment of selected rice varieties and breeding lines to anaerobic direct-seeding. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Malabayabas, M.D., A.A. Corpuz, J.L. De Dios, P. B. Rebong II, F.A. dela Peña, H. R. Rapusas, G.S. Rillon, A.T. Angeles, J.P. Rillon, G.B. Amar and E.R. Tiongco, P.C. Sta Cruz and A. Dobermann Crop residue management in relation to soil physico-chemical properties and pest incidence. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Casayuran, P.R., M.U. Dela Cruz, H.D. Justo Jr., F.M. Malabanan and S.R. Obien. Technology adaptation project. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Casayuran, P.R. and T.M. Corton Reversing trends of declining productivity in intensive irrigated rice systems (PHASE II).. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija,

- Philippines, 1999.
- 1999 Gagelonia, E.C. and J.A. Damian Comparative performance of wet direct seeding methods in a farmer's field. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 A.A. Corpuz, J.L. de Dios and M.D. Malabayabas On-farm testing of technologies. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Gines, H.C., G.O. Redodo and A. Dobermann The mega project on reversing trends of declining productivity. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1999.
- 1999 Pascual C.M., F.P. Lansingan, M.P. Lucas, T.F. Marcos, C.G. Acosta, E. Galacgac, H.L. Layaoen, S.R. Francisco, R.T. Utrera, S.R. Obien, J. Orno, N. Navarette, L. Dimasuay, E. Orpia, N. Ganotisi, N. Castro, A. Gandesa, C.T. Hoanh, R.T. Roetter, J.M.C.A. Cabrera and A. Laborte Exploratory land use options for Ilocos Norte. PhilRice Technical Bulletin, Vol. 4: 1-8, Muñoz, Nueva Ecija, Philippines, 1999.
- 1998 Javier, E. F., PR. Casayuran, and SR Obien Management of wet direct-seeded rice: I crop establishment, seeding rates and nitrogen management. Phil. J. Crop Science, 1998.
- 1998 Corton, T.M., W.B. Collado, J.B. Bajita, R.B. Badayos, J.C. De Jesus, F.O. Perez, P Evangelista, A. Dayot and C.B. Incillo Rice-soil resources inventory and evaluation. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 Gines, H.C., E.S. Punzalan, S.R. Obien, and A. Dobermann Reversing trends of declining productivity in intensive irrigated rice systems. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 Javier, E. F. Wet direct-seeded rice establishment methods and management. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 Corpuz, A.A., J.L. de Dios, E.D. Redoña, and S.R. Obien Management practices to maximize yield of irrigated lowland transplanted rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 De Dios, J.L. and A.A. Corpuz Nitrogen, phosphorus, and potassium ratios for irrigated lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 Prudente, J.A., T.M. Corton, and T. Motomatsu Biological and chemical methods of determining soil nitrogen status. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 Collado, W.B., E.J. P. Quilang and A.A. Corpuz Assessing leaf nitrogen status and fertilizer use with the leaf color chart. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 C.M. San Pascual, F.P. Lansigan, R.P. Roetter and S.R. Obien Sysnet project on exploratory land use options for Ilocos Norte. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1998 Pamplona, R.R. and V.C. Andaya Genetic coefficients relative to potential yield. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1998.
- 1997 J.F. Fabiosa Drought Problems in Rainfed Lowland Rice in the Philippines. International Workshop on Breeding Strategies for Rainfed Lowland Rice in Drought Prone Environments, Ubon Ratchathani, Thailand, 1997.

- 1997 Garcia, F.D. and T. Motomatsu Nitrogen fertilizer to improve vegetative growth of irrigated transplanted rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Javier, E.F. and S.R. Obien Evaluation of several commercial organic fertilizers in rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 De dios, J.L., R.O. Retales, A.A. Corpuz, and S.R. Obien Effect of Fipronil on the growth and yield of irrigated lowland rice. Rice R&D Highlights, 1997.
- 1997 Corales, R.G., C.A. Asis Jr., R.O. Retales and S.R. Obien Effect of effective microorganisms (EM) on lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 De Dios, J.L., A.A. Corpuz and EMSA Punzalan Intermittent irrigation scheduling and performance of transplanted lowland rice under different fertilization. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Punzalan, EMSA, J. L De Dios, A.A. Corpuz, G.O San Valentin, and S.R. Obien. Improvement in water management for efficient use of nutrients in irrigated lowland rice production. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Quilang, E.J.P. and A.A. Corpuz Assessing crop leaf nitrogen status with SPAD and leaf color chart. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Collado W.B., P.R. Casayuran, R.O. Torres, A.C. Morales and V. Balasubramanian On-farm trials of PhilRice-CREMNET Project. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Pamplona, R.R. Modeling the growth and yield of rice for breeding strategies. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Collado W.B., P.R. Casayuran, R.O. Torres, A.C. Morales and V. Balasubramanian On-farm trials of PhilRice-CREMNET Project. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Pamplona, R.R. Modeling the growth and yield of rice for breeding strategies. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Quilang, E.J.P. Evaluation of manage-N model for nitrogen optimization. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Corales, R.G., R.O. Retales, M.C. Casimero and P.C. Sta Cruz Crop Productivity and soil management of rainfed lowland rice-based cropping systems. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1997.
- 1997 Applications of systems analysis and simulation in rice research and production. philRice Technical Bulletin, 2 (1): 19-26, Philippine Rice Research Institute, Nueva Ecija, Philippines, 1997.
- 1997 Leaf Color Chart. Rice Technology Bulletin No. 22. PhilRice, Muñoz, Nueva Ecija, 1997.
- 1996 Casayuran, P.R. and E.F. Javier Establishment and management of wet direct-seeded rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 T.F. Padolina and R.R. Pamplona Predicting yields of new rice varieties in different test environments in the Philippines. Eds. P.K. Aggarwal et al. Towards Integration of Simulation Models in Rice Research. AB-DLO, TPE-WAU, Wageningen, Netherlands, 1996.

- 1996 Corales, R.G. and S.R. Obien Effective microorganisms in transplanted and wet direct seeded rice. Fifth EM Technology Conference. Asia-Pacific Natural Agriculture Network (APNAN), Saraburi, Thailand, 1996.
- 1996 Prudente, J. A., T.M. Corton, and T. Motomatsu Assessing soil nitrogen by biological and chemical methods. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Quilang, J.P. and C.A. Asis Jr. Assessing leaf nitrogen status with a chlorophyll meter. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Motomatsu, T., F.D. Garcia and C.A. Asis Jr Growth, yield, and nitrogen use of irrigated transplanted rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Corpuz, A.A., P.I. Rebuelta, R.J. Lara and S.R. Obien Management practices to maximize yield of irrigated transplanted rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 T.F. Padolina and R.R. Pamplona Evaluation of potential yield model. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Garcia, F.D. and W.N. Obcemea Influence of organic and inorganic fertilizers on yield of irrigated transplanted rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Sibayan, E.B., A.A Corpuz, P.I. Rebuelta, D.F. Tabbal, S.I. Bhuiyan, S.S. Virmani and J.O. Manalo Water use efficiency comparison between hybrid and inbred rices. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Retales, R. O., R.G. Corales and M.C. Casimero Crop productivity and soil management in rainfed lowland rice-based cropping system. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Corales, R.G., C.A. Asis Jr. and R.O. Retales Evaluation of Bokashi and EM-1 on lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1996.
- 1996 Pamplona, R.R., J. B. Bajita and P.J. Rebuelta Effects of radiation and temperature on Rice Yield. PhilRice Technical Bulletin, Vol. 1 (1): 47-55, Muñoz, Nueva Ecija, Philippines, 1996.
- 1995 Obien, S.R., M.C. Casimero and R.O. Retales Rice-based Cropping Systems for Sustainable High Yields in the Philippines. Second Asian Crop Science Congress, 1995.
- 1995 R.R. Valdez and K. Yoshida Yield and nitrogen use efficiency of irrigated lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Yoshida K. Crop growth response at different transplanting dates. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Casayuran P.R., D.V. Aragonés and M. Yamauchi Crop establishment and yield potential of direct seeded rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Prudente, J.A., T.M. Corton, and K. Yoshida Assessing soil nitrogen by biological and chemical methods. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Rebuelta, P.I., and S. R. Obien Verification of management practices for increasing rice yield. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.

- 1995 Yajima M. and K. Yoshida Modeling development processes of the rice plant. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Corales, R.G., F.D. Garcia, and R.O. Retales Evaluation of Enersol as foliar fertilizer for lowland fertilizer. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Marcos, T.F., S.R. Obien, P.C. Sta Cruz, R.S. Zeigher and J.K. Ladha Rainfed lowland rice research consortium. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Casimero, V.V., P.I. Rebuelta, and V. P. Gapud Responses of rice stem borer populations to fertilizer levels. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Corales, R.G. Evaluation of EM-1 on the growth and yield of lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Sibayan, E.B., P.I. Rebuelta, D.F. Tabbal, J. Manalo, S.I. Bhuiyan and S.S Yirmani Comparison of water use efficiency of hybrid and inbred rices. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1995.
- 1995 Valdez, R.R High yield and nitrogen use efficiency. PhilRice Technical Bulletin, Vol. 1 (1): 21-24, Muñoz, Nueva Ecija, Philippines, 1995.
- 1995 T.F. Padolina and R.R. Pamplona Predicting yields of PSB Varieties in different testing sites in the Philippines. PhilRice Technical Bulletin, Vol. 1 (1): 47-55, Muñoz, Nueva Ecija, Philippines, 1995.
- 1994 Yoshida K. A survey of rice yield and nitrogen fertilization. hil. Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Prudente, J.A., T.M. Corton and K. Yoshida Assessing soil nitrogen by biological and chemical methods. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Rebuelta, P.I. and S. R. Obien Verification of management practices for target rice yields. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Valdez, R.R. and K. Yoshida Nitrogen use efficiency of irrigated lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Collado, W. B. and A.A. Corpuz Long-term intensive cropping and fertility in irrigated lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Casayuran, P.R., D. Aragonés and M. Yamauchi Cultivar response to anaerobic seeding. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Yoshida K. A survey of rice yield and nitrogen fertilization. Phil. Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Prudente, J.A., T.M. Corton and K. Yoshida Assessing soil nitrogen by biological and chemical methods. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Rebuelta, P.I. and S. R. Obien Verification of management practices for target rice yields. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Valdez, R.R. and K. Yoshida Nitrogen use efficiency of irrigated lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.

- 1994 Collado, W. B. and A.A. Corpuz Long-term intensive cropping and fertility in irrigated lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Casayuran, P.R. D. Aragonés and M. Yamauchi Cultivar response to anaerobic seeding. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Yoshida K. Crop growth at different transplanting dates. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1994 Yajima M. and K. Yoshida Modeling development processes of the rice plant. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, 1994.
- 1992 W.R. Jordan and M.C. Drew Structural changes and associated reduction in hydraulic conductance in roots of Sorghum bicolor L. following exposure to water deficit. Plant Physiol, 1992.
- 1991 Dingkuhn, M., J.C. O'Toole, N.C. Turner and K. Dorffling Responses of diverse rice cultivars to water deficits. III. Accumulation of abscisic acid and proline in relation to leaf water potential and osmotic adjustment. Field Crops Research, 1991.
- 1989 Dingkuhn, M., J.C. O'Toole and K. Dorffling et Photosynthesis, Water Use Efficiency, Leaf Water Potential and Leaf Rolling as Affected by Water Deficit in Tropical Upland Rice.. Australian J. Agric, 1989.
- 1986 Turner, N.C., J.C. O'Toole, O.S. Namuco and S. Ahmad Responses of seven diverse rice cultivars to water deficits. I. Stress development, canopy temperature, leaf rolling and growth. Field Crops Res, 1986.
- 1986 Turner, N.C., J.C. O'Toole, E.B. Yambao, S. Ahmad, O.S. Namuco and M. Dingkuhn II. Osmotic adjustment, leaf elasticity, leaf extension, leaf death, stomatal conductance and photosynthesis. Field Crops Res, 1986.
- 1986 J.C. O'Toole, M. Dingkuhn, E.B. Yambao, M. Thangaraj and S.K. De Datta Root and shoot response to water deficits in rainfed lowland rice. Australian J. Plant Physiol, 1986.
- 1985 Novero, R.P., J. C. O'Toole and D.P. Garrity Leaf water potential, crop growth response, and microclimate of dryland rice under line source sprinkler irrigation.. Agric. and Forest Meteorology, 1985.
- 1985 J.C. O'Toole Reproductive stage water stress in dryland rice. Phil. Agric, 1985.
- 1984 J.C. O'Toole Dryland rice response to an irrigation gradient at flowering stage. Agronomy Journal, 1984.
- 1983 J.C. O'Toole and K. Moody Leaf water potential of weeds and rice (*Oryza sativa* L.. Weed Science, 1983.
- 1983 O'Toole, J.C. Genotypic variation in epicuticular wax in rice. Crop Science, 1983.
- 1980 O'Toole, J.C. Response of leaf water potential, stomatal resistance, and leaf rolling to water stress. Plant Physiology Journal, 1980.
- 1979 O'Toole, J.C. and J.N. Seiber Epicuticular wax and cuticular resistance in rice. Physiologia Plantarum Journal, 1979.
- 1979 O'Toole, J.C. and T.N. Singh Leaf rolling and transpiration. Plant Science Letters, 1979.
- Corales, R.G., F.D. Garcia and R.O. Retales Evaluation of crop giant as foliar fertilizer for lowland rice. Philippine Rice R&D Highlights, PhilRice, Nueva Ecija, Philippines, .

**Name** Arvin C. Diesmos  
**Place of Birth** Manila  
**Date of Birth** June 4, 1969  
**Gender** Male  
**Civil Status** Married  
**Home Address** Block 12 lot 15 V, Barrios St., BF Homes Resort Village, Brgy Talon II, Las Pinas City

**Organizational Affiliations**

Scientist, Conservation Ecology Laboratory, Dept of Biological Sciences, National University of Singapore, Block S3 14 Science Drive 4, Singapore 117543

Museum Researcher II, Herpetology Section, Zoology Division. National Museum of the Philippines, Padre Burgos Ave., Ermita, Manila

Herpetologist Consultant, Philippine Eagle Foundation, Inc.,

Associate Scientist, Silliman University -Angelo King Center for Research and Environmental Management, Dumaguete City, Philippines

Reviewer of Technical Papers and Popular Articles, Sylvatrop, Siliman Journal, and Haring Ibon,

Scientist III, National Museum of the Philippines, Padre Burgos Avenue, Ermita 1000, Manila, Philippines

Researcher II, In-Charge, Herpetology Section, Zoology Division, National Museum of the Philippines

**Education**

Doctor of Philosophy (Ph.D. in Biology), National University of Singapore, Singapore 2009

Ph. D. in Biology, National University of Singapore, Singapore 2004

M. S. in Wildlife Studies (Wildlife Ecology and Environmental Science), University of the Philippines at Los Baños, College, Laguna 1998

B.S. Biology (Animal Ecology), University of the Philippines at Los Baños, College, Laguna 1992

**Fields of Specialization**

Ecology

Biodiversity Conservation

Zoology

Biogeography

**Employment**

President, Wildlife Conservation Society of the Philippines, Inc., 2003-2006

Associate in Zoology, Field Museum of Natural History, 2002-2006

Regional Coordinator for the Philippines, IUCN-SSC, 2002-2004

Consultant Senior Biologist, Conservation International Philippine for Palawan Corridor Strategy Development Project, 2001-2003

Principal Investigator, DAFTF, 2002-

Co Study Leader, Herpwatch Palawan, 2001-2003

Research Associate, University of the Philippines at Los Baños (UPLB), Museum of Natural History, 1992-1993

Consultant Senior Biologist, Conservation International Philippines for Palawan Corridor Strategy development Project, 2001-2003

Working Group Leader, Philippine Herpetology, 2000-2002

Principal Investigator, Declining Amphibian Populations Task Force (DAPTF), 2002-

Co-Study Leader, Herpwatch Palawan, 2001-2003

Herpetologist, Field Museum, Chicago, 2000-2002

Consultant Herpetologist, World Wildlife Fund-US, Databasing of Philippine Amphibians and Reptiles, 1999-2000

Field Biologist, RITM, 1998

Field Biologist, Haribon Foundation-Nordic Agency for Development and Ecology, 1996-1998

Wildlife Biologist Consultant, Metropolitan Museum of Manila, 1996

Wildlife Biologist Consultant, Viajes Filipinas, Manila, 1995-2000

Wildlife Biologist Consultant, Lingap Para sa Kalusugan ng Sambayanan, 1995

Ornithologist, Haribon-Birdlife Phil., 1995

Wildlife Biologist Consultant, Vogelpark Avifauna (Germany) and Birds International Phil. Inc., 1994-1995

Field Biologist, Cincinnati Museum of National History and National Museum of the Philippines, 1994

Field Biologist, BirdLife International, 1993

Field Biologist, Cincinnati Museum of Natural History and National Museum of the Phil., 1993

Field Biologist, Philippine DENR and Japan Wildlife Research Center, 1992-1993

Field Biologist, Phil DENR and Birdlife International, 1991-1992

Associate Professorial Lecturer, De La Salle University Manila, 2012-present

Teaching Assistant, National University of Singapore, 2004-2007

Assistant Professorial Lecturer, Biological Sciences Department, De La Salle University-Dasmariñas, 1998-2001

Teaching Assistant, University of the Philippines at Los Baños, 1995

Member, Project Technical Review Committee, Foundation for the Philippine Environment, 2014-present

Member of the Editorial Board, UPLB Museum Publications in Natural History, University

of the Philippines, Los Baños, Laguna, 2014-present

President, Philippine Association of Career Scientists Inc, 2013-present

Editor, Advances in Zoology, Hindawi Publishing Corporation, 2013-present

Scientific Editor, Philippine Journal of Natural History, National Museum of the Philippines, Manila, 2013-present

Member-Judge, Advisory Committee, National Book Development Trust Fund, National Book Development Board, 2012-2014

Board Member, Crocodylus Porosus Philippines, Inc, 2012-present

Member, Experts Advisory Panel, Foundation for the Philippine Environment, 2011-present

Associate Editor, Asian Journal of Biodiversity, Liceo de Cagayan University, 2011-present

Adjunct Research Associate, Natural History Museum, University of Kansas, USA, 2011-2012

Associate in Zoology, Field Museum, Chicago, USA., 2011-present

Member, IUCN SSC (International Union for the Conservation of Nature Species Survival Commission) Crocodile, 2011-present

Member, IUCN Amphibian Red List Authority, 2010-present

Resource Person, GMA Network, Born To Be Wild (TV program), 2008-present

Resource Person, ABS-CBN Network, Matang Lawin (TV program), 2008-present

Regional (Philippines) Working Group Chair, IUCN SSC Amphibian Specialist Group, 2007-present

Member, IUCN SSC Tortoise and Freshwater Turtle Specialist Group, 2005-2008

Member, Philippine Eagle Working Group, Department of Environment and Natural Resources (Philippines), 2004-present

Member of the Board of Directors, Wildlife Conservation Society of the Philippines, Inc, 2003-present

President, Wildlife Conservation Society of the Philippines, Inc, 2003-2006

Reviewer of project proposals: BP Conservation Programme, Haribon Foundation, Foundation for the Philippine Environment, 2003-present

Associate Scientist, Silliman University-Angelo King Center for Research and Environmental Management, 2000-present

Scientific Consultant, Crocodylus Porosus Philippines, 2011-Present

Specialist in Herpetology and Biodiversity, Fauna and Flora International (Philippines), 2011-present

Specialist in Herpetology and Biodiversity, PUSOD Inc., Philippines, 2010

Specialist in Herpetology and Terrestrial Biodiversity, Maunsell Philippines, Inc, 2009

Co-Principal Investigator, University of Kansas, USA and National Museum of the Philippines, 2008-present

Herpetologist Consultant, Philippine Eagle Foundation, Inc, 2005-2007

Herpetologist Consultant, Philippine Eagle Foundation, Inc., 2003

Principal Investigator, DAPTF, 2002

Consultant Senior Biologist, Conservation International Philippines for Palawan Corridor Strategy Development Project, 2001-2003

Co-Study Leader, HerpWatch Palawan 2001 Project funded by the BP Conservation Programme, 2001-2003

Herpetologist, Field Museum, Chicago, 2000-2002

Consultant Herpetologist, World Wildlife Fund-US, 1999-2000

Field Biologist, Research Institute for Tropical Medicine (Philippines) and Centers for Disease Control (USA), 1998

Ornithologist, Viajes Filipinas, Manila, 1998

Herpetologist Consultant, Southern Luzon Polytechnic College, Lucban, Quezon Province, 1998

Field Biologist, Haribon Foundation-Nordic Agency for Development and Ecology, 1996-1998

Wildlife Biologist Consultant, Tayabas Mountaineers, 1995

Wildlife Biologist Consultant, Luntiang Alyansa Para sa Bundok Banahaw and Tayabas Mountaineers, 1995

Wildlife Biologist Consultant, Vogelpark Avifauna (Germany) and Birds International, Inc. (Philippines), 1994-1995

Field Biologist, Cincinnati Museum of Natural History and National Museum of the Philippines, 1994

Field Biologist, BirdLife International, 1993

Field Biologist, Cincinnati Museum of Natural History and National Museum of the Philippines, 1993

Field Biologist, Philippine Department of Environment and Natural Resources and Japan Wildlife Research Center, 1992-1993

Field Biologist, Philippine Department of Environment and Natural Resources and BirdLife International, 1991-1992

Field Biologist, Wildlife Biology Laboratory University of the Philippines at Los Baños, 1990

Resource Person, Philippine Daily Inquirer, 2013-present

Resource Person, National Academy of Science and Technology, 2012-present

Resource Person, GMA Network, Born To Be Wild (TV program)., 2008-present

Resource Person, ABS-CBN Network, Matang Lawin (TV program), 2008-present

Resource Person, Metropolitan Museum of Manila, 1996

Resource Person, Viajes Filipinas, Manila, 1995-2000

Resource Person, Lingap Para sa Kalusugan ng Sambayanan, Inc., Sorsogon, 1995

Resource Person, Haribon-BirdLife Philippines, 1995

### **Association Membership**

Member, Association of Systematic Biologists of the Philippines (ASBP)

Incorporator and Member of the Board, ISLA Conservation, Inc.

Incorporator and Member of the Board, Herpetological Society of the Philippines, Inc.

Member, Wildlife Conservation Society of the Philippines, Inc.

Member, Oriental Bird Club

Founding Member, University of the Philippines at Los Banos Mountaineers

Member, Symbiosis, UPLB Biological Society

Member, Philippine Eagle Working Group, DENR

Reviewer of the Project Proposals, BP Conservation Programme and Threatened Species Programme of the Haribon Foundation

Member of the Board of Directors, Wildlife Conservation Society of the Philippines, Inc.

Member, Declining Amphibian Population Tasks Force (DAFTF)

Associate Member, National Research Council of the Philippines

Association of Career Scientists Inc, Philippine Association of Career Scientists Inc

Special Group, IUCN SSC Crocodile Specialist Group

### **Honors / Awards**

TSA Seed Grants, IUCN Turtle Survival Alliance, University of Kansas 2006

Rufford Small Grant for Nature Conservation, Cagayan Valley Programme on Environment and Dev. 2005

Cagayan Valley Programme on Environment and Dev. (CVPED) Research Grant, Cagayan Valley Programme on Environment and Dev. 2005

Threatened Species Fund Grant, Conservation International 2005

Research and Conservation Grant, Conservation Fund 2003

Fellowship Grant, Raffles Museum of Biodiversity Research 2002

Declining Amphibian Populations Task Force (DAPTF) Seed Grant, Declining Amphibian Populations Task Force 2002

Silver Award, British Petroleum Conservation Programme 2001

ARCBC Research Grant, ASEAN Regional Center for Biodiversity Conservation 2001

Conservation and Environmental Grants, Ford Motor Company Phil. 2000

Special Award for Research, DLSU-Dasmariñas 2000

Faculty Research Grant, University Faculty Research Office, DLSU-Dasmariñas 2000

Luisito S. Cuy Award for Best Master's Thesis in Wildlife Biology, UPLB 2000

Herpetology Grant, Texas Memorial Museum, University of Texas at Austin 1999

Charles Stearns Fellowship, California Academy of Sciences, San Francisco, California, USA 1999

Master's Thesis Grant, Southern Luzon Polytechnic College 1998

Research Fellow, University of the Philippines-Center for Integrative Development Studies 1996

Field Fellowship Support Grant, Haribon Foundation 1992

Discoverers of Amazing Wildlife Award, Department of Environment and Natural Resources, Philippines 2012

Rufford Small Grant for Nature Conservation, Rufford Maurice Laing Foundation 2012

Congressional Medal of Excellence in Research and Development, AGHAM Party List, House of Representatives, Philippines 2011

Outstanding Editorial Board, Asian Journal of Biodiversity, Liceo de Cagayan University 2011

National Academy of Science and Technology, Department of Science and Technology, Philippines, Outstanding Young Scientist Award 2008

IUCN Turtle Survival Alliance (with Dr. Rafe M. Brown, University of Kansas, TSA Seed Grants 2006

Rufford Small Grant for Nature Conservation, Rufford Maurice Laing Foundation, United Kingdom 2005

CVPED Research Grant, Cagayan Valley Programme on Environment and Development of the Isabela State University and Leiden U 2005

## **Trainings**

Researcher's Forum, Cagayan Valley Program on Environment and Development, Isabela State University, Cabagan, Isabela Province 2005

Philippine Biodiversity Symposium, De La Salle University-Dasmarias, Cavite 2003

Lecture Series for Biology Students, University of Sto Tomas, Albertus Magnus Hall, Manila 2003

Visiting Scientists Lecture, Dept. of Biological Sciences, National University of Singapore, Singapore 2003

37th Annual National Convention and Scientific Sessions, BIOTA, Xavier University, Cagayan de Oro City 2002

Training Workshop on Red List Categories for Threatened Plants and Animals in the Philippines, National Museum and Protected Areas and Wildlife Bureau, Quezon City 2001

State of the Hotspots Indicator's Workshop, Conservation International Phil., Leyte State University, Baybay, Leyte 2001

10th Philippine Vertebrate Symposium, Wildlife Conservation Society of the Philippines, Dumaguete City, Negros Oriental 2001

State of the Hotspots Indicator's Workshop, Conservation International-Philippines, Leyte State University, Baybay, Leyte Province 2001

Teacher's Training Module on Biodiversity, Haribon Foundation, Los Banos, Laguna;

Dumaguete City, Negros Oriental; Initao, Misamis Oriental 2001

National Biodiversity Conservation Priority-Setting Workshop, University of the Philippines and, Conservation Inter., UP and Protected Areas and Wildlife Bureau, Cebu City 2000

8th Philippine Vertebrate Symposium, Wildlife Conservation Society of the Philippines, Puerto Princesa City, Palawan 1999

1st Symposium on the Science and Management of Mountain Ecosystems, Makiling Center for Mountain Ecosystems, Los Banos, Laguna 1999

1st Symposium on the Systematics and Biogeography of Philippine Amphibians and Reptiles, National Museum of the Philippines, Manila 1998

5th Annual Vertebrate Symposium, Wildlife Conservation Society of the Philippines, Silliman University, Dumaguete City 1996

4th Annual Vertebrate Symposium, Wildlife Conservation Society of the Philippines, UP Diliman, Quezon City 1995

3rd Annual Vertebrate Symposium/1st Annual Mtg. of the Wildlife Conservation Society of the Phil., MSU-IIT and Haribon Ranao, Mis. Oriental 1994

Biodiversity Assessment Training and Seminar, DENR, Inter. Council for Bird Preservation and Haribon Foundation, UPLB 1991

## **Researches**

### **Completed**

Field Surveys and Conservation of the Amphibians and Reptiles of Palawan

### **On-going**

Status and distribution of the Asian Giant Soft shell Turtle *Pelochelys cantorii* Gray 1864 in the Philippines

Conservation ecology of Herpetofaunal Communities in fragmented lowland rainforest on Luzon Island, Philippines

## **Papers Presented**

(2014). NSRI Lecture Series, National Science Research Institute, University of the Philippines.

(2014). Science In The Age of #, Annual Meeting and 8th Scientists Conference. Philippine Association of Career Scientists and Scientific Career System. Eastwood Richmond Hotel, Pasig City.

(2014). Amphibians and Reptiles of Quezon Protected Landscape, Quezon Province, Luzon Island, Philippines, 36th Annual Scientific Meeting. National Academy of Science and Technology, PICC, Pasay City.

(2014). Amphibian Conservation Needs Assessment Philippines, Amphibian Ark and National Museum of the Philippines. University of Santo Tomas, Manila.

(2014). Challenges and Issues Facing Natural History Collections and Museums, 23rd Annual Biodiversity Symposium.

(2013). Young Christian Physicist Conference, Kasarinlan High School, Caloocan City.

(2013). Importance of Limestone Karst Habitat in the Evolution and Ecology of Philippine Amphibian and Reptiles, Cave Congress. Tagum City, Davao del Norte.

(2013). Recent Advancement in the Field of Herpetological Studies and Research,

Polytechnic University of the Philippines. Manila.

(2012). 9th International Conference on Philippines Studies, Philippine Studies Association, Inc., Michigan State University, East Lansing, Michigan, USA.

(2012). 21st Working Meeting of the IUCN-SSC Crocodile Specialist Group, Crocodylus Porosus Philippines, Inc., Museum of the Filipino People, Manila.

(2012). 21st Annual Biodiversity Symposium, Wildlife Conservation Society of the Philippines, Museum of the Filipino People, Manila and De La Salle University, Dasmariñas City, Cavite.

(2012). Conservation Leadership Programme, Fauna and Flora International; Asian Institute of Management, Makati City, International Institute for Rural Reconstruction, Cavite.

(2012). National Museum Lecture Series, Museum of the Filipino People. Manila.

(2012). Amphibian Conservation Needs Assessment Workshop, Amphibian Ark, Hanoi, Vietnam.

(2012). 79th General Membership Assembly, National Research Council of the Philippines. Hotel Sofitel Philippine Plaza, Manila.

(2012). Seminar on Specimen Preservation for Museum Collection, father Saturnino Urios University. Butuan City.

(2012). Alternative Class, Science Week 2012, College of Science, University of Santo Tomas, Manila.

(2012). Thesis It! A Third Year Symposium on Scientific Research, Alberto Magnus Auditorium, University of Santo Tomas, Manila.

(2011). Seminar/Orientation on the Ecotown Demonstration Framework, Climate Change Commission and Global Green Growth Institute, Heritage Hotel, Manila.

(2011). Managing Megadiverse Biodiversity: Using the Catalogue of Life Infrastructure and Services, WorldFish Center, FIN, Species2000, SEARCA, Los Baños, Laguna.

(2011). 5TH Annual Scientific Forum, Philippine Association of Career Scientists and Department of Science and Technology; Sulo Riviera Hotel, Quezon City.

(2011). Experts Advisory Panel National Conference Program, Foundation for the Philippine Environment, Quezon City.

(2011). National Museum Lecture Series, Museum of the Filipino People. Manila.

(2011). 29th Annual ASBP Scientific Conference, Association of Systematic Biologists of the Philippines. UST, Manila.

(2011). Crocodile Specialist Group Regional Species Meeting, IUCNSSC Crocodile Specialist Group, Mahidol University, Bangkok, Thailand.

(2011). 20th Annual Biodiversity Symposium, Wildlife Conservation Society of the Philippines, Silliman University, Dumaguete City.

(2011). Professorial Lectures and Launching of Asian Journal of Biodiversity, Liceo de Cagayan University, Cagayan de Oro City.

(2011). 2011 Training Workshop for College and School Teachers Teaching Biological Science, La Union Botanical Garden, San Fernando, La Union.

(2010). 19th Annual Biodiversity Symposium, Wildlife Conservation Society of the

Philippines, Bicol University, Legazpi City.

(2009). 44th Annual National BIOTA (Biology Teachers Association of the Philippines) Convention and Scientific Sessions, University of Makati, Makati City.

(2009). 1st Symposium on Biodiversity Field Techniques, Western Mindanao State University, Zamboanga City.

(2009). 2nd National Museum Researchers' Forum, National Museum of the Philippines, Manila.

(2008). Taiwan Amphibian and Reptile Association, National Taiwan Normal University, Taipei City, Taiwan.

(2008). Biodiversity: Research and Teaching Strategies, BIOTA, Central Mindanao University, Bukidnon.

(2008). Adventure Philippines: A Seminar on Adventure Tourism, Department of Tourism, Hotel Stotsenberg, Clark Freeport Zone, Pampanga.

(2008). KAPLAG Nature Society, Gingoog City, Misamis Oriental.

(2008). Museum of Natural History, University of the Philippines, Los Baños, Laguna.

(2008). Annual Membership Meeting and Scientific Forum, Association of Systematic Biologists of the Philippines, National Museum of the Philippines, Manila.

(2008). 17th Annual Philippine Biodiversity Symposium, Wildlife Conservation Society of the Philippines, Visayas State University, Baybay, Leyte.

(2008). Southeast Asia Amphibian Conservation Meeting, Conservation International, Phnom Penh, Cambodia.

(2008). Science Week 2008, Biology Society, University of Santo Tomas, Manila.

(2005). Researcher's Forum, Cagayan Valley Program on Environment and Development, Isabela State University, Cabagan, Isabela Province.

(2003). Lecture Series for Biology Students, University of Santo Tomas, Albertus Magnus Hall, Manila.

(2003). Visiting Scientists Lecture, Department of Biological Sciences, National University of Singapore.

(2003). Philippine Biodiversity Symposium 2003, De La Salle University Dasmariñas, Cavite Province.

(2002). 37th Annual National Convention and Scientific Sessions, Biology Teachers Association of the Philippines. Xavier University, Cagayan de Oro City.

(2001). Red List Categories for Threatened Plants and Animals in the Philippines, National Museum and Protected Areas and Wildlife Bureau, Visitor's Center, Ninoy Aquino Parks and Wildlife Compound, Quezon City.

(2001). Training Workshop on Red List Categories for Threatened Plants and Animals in the Philippines, National Museum and Protected Areas and Wildlife Bureau. Visitor's Center, Ninoy Aquino Parks and Wildlife, Quezon City.

(2001). State of the Hotspots Indicator's Workshop, Conservation International Philippines. Leyte State University, Baybay, Leyte Province.

(2001). Piloting Workshop of the Teacher's Training Module on Biodiversity, Haribon Foundation. Los Baños, Laguna Province; Dumaguete City, Negros Oriental Province;

Initao, Misamis Oriental Province.

(2001). 10th Philippine Vertebrate Symposium, Wildlife Conservation Society of the Philippines. Dumaguete City, Negros Oriental Province.

(2000). The Importance of Teaching Biodiversity in the Biology Curriculum, Divine Word College of Tagbilaran, Tagbilaran City.

(2000). National Biodiversity Conservation Priority-Setting Workshop, Conservation International, University of the Philippines, and Protected Areas and Wildlife Bureau. Cebu City, Cebu Province; Davao City, Davao Province; Batangas City, Batangas Province; Subic, Olongapo Province.

(2000). The Importance of Teaching Biodiversity in the Biology Curriculum, Divine World College of Tagbilaran, Tagbilaran City, Bohol Province.

(1999). First Symposium on the Science and Management of Mountain Ecosystems, Makiling Center for Mountain Ecosystems, Los Baños, Laguna.

(1999). 8th Philippine Vertebrate Symposium, Wildlife Conservation Society of the Philippines. Puerto Princesa City, Palawan Province.

(1998). How Many Species are There?, University of the Philippines Center for Integrative and Development Studies and National Academy of Science and Technology, Diliman, Quezon City.

(1998). First Symposium on the Systematics and Biogeography of Philippine Amphibians and Reptiles, National Museum of the Philippines, Manila.

(1997). Pansinaya Sa Bundok Banahaw, Luntian Alyansa Para Sa Bundok Banahaw, Tayabas, Quezon Province.

(1997). How Many Species Are There?, University of the Philippines-Center for Integrative and Development Studies and National Academy of Science and Technology, Diliman, Quezon City.

(1997). Pansinaya sa Bundok Banahaw, Luntiang Alyansa Para sa Bundok Banahaw. Tayabas, Quezon Province.

(1996). 5th Annual Vertebrate Symposium, Wildlife Conservation Society of the Philippines. Silliman University, Dumaguete City, Negros Oriental Province.

(1995). 4th Annual Vertebrate Symposium, Wildlife Conservation Society of the Philippines, University of the Philippines, Diliman, Quezon City.

(1994). 3rd Annual Vertebrate Symposium and 1st Annual Meeting of the Wildlife Conservation Society of the Philippines, Mindanao State University-Iligan Institute of Technology and Haribon Ranao. Initao, Misamis Oriental Province.

(1992). Preliminary Report of the Biodiversity Assessment of the Sierra Madre Mountains, DENR, International Council for Bird Preservation, Ilagan, Isabela.

(1992). Preliminary Report of the Biodiversity Assessment of the Sierra Madre Mountains, Department of Environment and Natural Resources and International Council for Bird Preservation. Ilagan, Isabela Province.

(1991). Biodiversity Assessment Training and Seminar, Department of Environment and Natural Resources, International Council for Bird Preservation, and Haribon Foundation. University of the Philippines, Los Baños, Laguna.

## **Publications**

- 2014 Brown, R. M., J. A. Weghorst, K. V. Olson, M. R. M. Duya, L. V. Duya, M. Shekelle, I. N. Arboleda, J. A. Esselstyn, N. J. Dominy, P. S. Ong, A. Luczon, G. L. Moritz, M. L. Diesmos, and C. D. Siler Conservation Genetics of the Philippine Tarsier: Cryptic genetic restructures conservation priorities in an island archipelago primate. *PLoS One*, 2014.
- 2014 Siler, C. D., C. W. Linkem, K. Cobb, J. L. Watters, S. T. Cummings and R. M. Brown Taxonomic revision of the semi-aquatic skink *Parvoscincus leucospilos* (Reptilia: Squamata: Scincidae), with description of three new species. *Zootaxa*, 2014.
- 2014 Gonzalez, P., Y. C. Su, C. D. Siler, A. J. Barley, M. B. Sanguila and R. M. Brown Archipelago colonization by ecologically dissimilar amphibians: Evaluating the expectation of common evolutionary history of geographic diffusion in co-distributed rainforest tree frogs in islands of Southeast Asia. *Molecular Phylogenetic and Evolution*, 2014.
- 2014 A. C. Alcalá, C. D. Siler, and R. M. Brown Status and Conservation of Philippine Amphibians. *Natural History Publications (Borneo)*, 2014.
- 2013 Brown, R. M., C. D. Siler, C. H. Oliveros, J. A. Esselstyn, P. A. Hosner, C. W. Linkem, A. J. Barley, J. R. Oaks, M. B. Sanguila, L. J. Welton, D. C. Blackburn, R. G. Moyle, A. Townsend Peterson, and A. C. Alcalá Evolutionary processes of diversification in a model island archipelago. *Annual Review of Ecology, Evolution, and Systematics*, 2013.
- 2013 Scheffers, B. R., B. L. Phillips, W. F. Laurance, N. S. Sodhi and S. E. Williams Increasing arboreality with altitude: a novel biogeographic dimension. *Royal Society B*, 2013.
- 2013 Barley, A.J., J. White and R.M. Brown The Challenge of Species Delimitation at the Extremes: Diversification without morphological change in Philippine sun skinks. *Evolution*, 2013.
- 2013 Blackburn, D., C.D. Siler, J.A. McGuire, D.C. Canatella, and R.M. Brown An adaptive radiation of frogs in a Southeast Asian island archipelago. *Evolution*, 2013.
- 2013 Sheffers, B.R., R.M. Brunner, S.D. Ramirez, L.P. Shoo and S. E. Williams Thermal buffering of microhabitats is a critical factor mediating warming vulnerability of frogs in the Philippine biodiversity hotspot. *Biotropica*, 2013.
- 2013 Brown, R. M., C. D. Siler, C. H. Oliveros, L. J. Welton, A. Rock, J. Swab, M. van Weerd, J. van Beijnen, E. Jose, D. Rodriguez and E. Jose The amphibians and reptiles of Luzon Island, Philippines, VIII: the herpetofauna of Cagayan and Isabela Provinces, northern Sierra Madre Mountain Range. *ZooKeys*, 2013.
- 2013 Welton, L. J., C. D. Siler, C. W. Linkem, M. L. Diesmos, E. Sy, and R. M. Brown Dragons in our midst: Phyloforensics of illegally traded Southeast Asian monitor lizards. *Biological Conservation*, 2013.
- 2013 Balmford, M., B. Collen, J. E. M. Baillie, P. Bowles, J. Chanson, N. Cox, G. Hammerson, M. Hoffmann, S. R. Livingstone, M. Ram, A. G. J. Rhodin, S. N. Stuart, P. P. van Dijk, B. E. Young, L. E. Afuang, A. Aghasyan, A. García, C. Aguilar, R. Ajtic, F. Akarsu, L. R. V. Alencar, A. Allison, N. Ananjeva, S. Anderson, C. Andr n, D. Ariano-S nchez, J. C. Arredondo, M. Auliya, C. C. Austin, A. Avci, P. J. Baker, A. F. Barreto-Lima, C. L. Barrio-Amor s, D. Basu, M. F. Bates, A. Batistella, A. Bauer, D. Bennett, W. B hm, D. Broadley, R. Brown, J. Burgess, A. Captain, S. Carreira, M. R. Castaeda, F. Castro, A. Catenazzi, J. R. Cede o-V zquez, D. G. Chapple, M. Cheylan, D. F. Cisneros-Heredia, D. Cogalniceanu, H. Cogger, C. Corti, G. C. Costa, P. J. Couper, T. Courtney, J. Crnobrnja-Isailovic, P.-A. Crochet, B. Crother, F. Cruz, J. C. Daltry, R. J. R. Daniels, I. Das, A. de Silva, L. Dirksen, T. M. Doan, C. K. Dodd Jr, J. S. Doody, M. E. Dorcas, J. Duarte de Barros Filho, V. T. Egan, E. H. El Mouden, D. Embert, R. E. Espinoza, A.

Fallabrino, X. Feng, Z.-J. Feng, L. Fitzgerald, O. Flores-Villela, F. G. R. França, D. Frost, H. Gadsden, T. Gamble, S. R. Ganesh, M. A. Garcia, J. E. García-Pérez, J. Gatus, M. Gaulke, P. Geniez, A. Georges, J. Gerlach, S. Goldberg, J.-C. T. Gonzalez, D. J. Gower, T. Grant, E. Greenbaum, C. Grieco, P. Guo, A. M. Hamilton, K. Hare, S. B. Hedges, N. Heideman, C. Hilton-Taylor, R. Hitchmough, B. Hollingsworth, M. Hutchinson, I. Ineich, J. Iverson, F. M. Jaksic, R. Jenkins, U. Joger, R. Jose, Y. Kaska, U. Kaya, J. S. Keogh, G. Köhler, G. Kuchling, Y. Kumluta, A. Kwet, E. La Marca, W. Lamar, A. Lane, B. Lardner, C. Latta, G. Latta, M. Lau, P. Lavin, D. Lawson, M. LeBreton, E. Lehr, D. Limpus, N. Lipczynski, A. S. Lobo, M. A. López-Luna, L. Luiselli, V. Lukoschek, M. Lundberg, P. Lymberakis, R. Macey, W. E. Magnusson, D. L. Mahler, A. Malhotra, J. Mariaux, B. Maritz, O. A. V. Marques, R. Márquez, M. Martins, G. Masterson, J. A. Mateo, R. Mathew, N. Mathews, G. Mayer, J. R. McCranie, G. J. Measey, F. Mendoza-Quijano, M. Menegon, S. Métrailler, D. A. Milton, C. Montgomery, S. r. A. A. Morato, T. Mott, A. Muñoz-Alonso, J. Murphy, T. Q. Nguyen, G. Nilson, C. Nogueira, H. Nuñez, N. Orlov, H. Ota, J. Ottenwalder, T. Papenfuss, S. Pasachnik, P. Passos, O. S. G. Pauwels, N. Pérez-Buitrago, V. n. Pérez-Mellado, E. R. Pianka, J. Pleguezuelos, C. Pollock, P. Ponce-Campos, R. Powell, F. Pupin, G. E. Quintero Díaz, R. Radder, J. Ramer, A. R. Rasmussen, C. Raxworthy, R. Reynolds, N. Richman, E. L. Rico, E. Riservato, G. Rivas, P. L. B. da Rocha, M.-O. Rödel, L. Rodríguez Schettino, W. M. Roosenburg, J. P. Ross, R. Sadek, K. Sanders, G. Santos-Barrera, H. H. Schleich, B. R. Schmidt, A. Schmitz, M. Sharifi, G. Shea, H.-T. Shi, R. Shine, R. Sindaco, T. Slimani, R. Somaweera, S. Spawls, P. Stafford, R. Stuebing, S. Sweet, E. Sy, H. J. Temple, M. F. Tognelli, K. Tolley, P. J. Tolson, B. Tuniyev, S. Tuniyev, N. Úezim, G. van Buurt, M. Van Sluys, A. Velasco, M. Vences, M. Veselý, S. Vinke, T. Vinke, G. Vogel, M. Vogrin, R. C. Vogt, O. R. Wearn, Y. L. Werner, M. J. Whiting, T. Wiewandt, J. Wilkinson, B. Wilson, S. Wren, T. Zamin, K. Zhou, and G. Zug The conservation status of the world's reptiles. *Biological Conservation*, 2013.

- 2012 Linkem, C. W., R. M. Brown, C. D. Siler, B. J. Evans, C. C. Austin, D. T. Iskandar, J. Supriatna, N. Andayani, and J. A. McGuire Stochastic faunal exchanges drive diversification in widespread Wallacean and Pacific island lizards (Squamata: Scincidae: *Lamprolepis smaragdina*). *Journal of Biogeography*, 2012.
- 2012 J. R. Buskirk, S. Schoppe, M. L. L. Diesmos, E. Sy, and R. M. Brown Conservation Biology of Freshwater Turtles and Tortoises: A Compilation Project of the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group. *Chelonian Research Monographs*, 2012.
- 2012 Siler, C. D., R. M. Jones, M. L. Diesmos, and R. M. Brown Phylogeny-based species delimitation in Philippine slender skinks (Reptilia: Squamata: Scincidae) III: Taxonomic revision of the *Brachymeles gracilis* complex, with descriptions of three new species. *Herpetological Monographs*, 2012.
- 2012 Laurance, W. F., D. Carolina Useche, J. Rendeiro, M. Kalka, C. J. A. Bradshaw, S. P. Sloan, S. G. Laurance, M. Campbell, K. Abernethy, P. Alvarez, V. Arroyo Rodriguez, P. Ashton, J. Benitez-Malvido, A. Blom, K. S. Bobo, C. H. Cannon, M. Cao, R. Carroll, C. Chapman, R. Coates, M. Cords, F. Danielsen, B. De Dijn, E. Dinerstein, M. A. Donnelly, D. Edwards, F. Edwards, N. Farwig, P. Fashing, P.-M. Forget, M. Foster, G. Gale, D. Harris, R. Harrison, J. Hart, S. Karpanty, W. John Kress, J. Krishnaswamy, W. Logsdon, J. Lovett, W. Magnusson, F. Maisels, A. R. Marshall, D. McClearn, D. Mudappa, M. R. Nielsen, R. Pearson, N. Pitman, J. van der Ploeg, A. Plumptre, J. Poulsen, M. Quesada, H. Rainey, D. Robinson, C. Roetgers, F. Rovero, F. Scatena, C. Schulze, D. Sheil, T. Struhsaker, J. Terborgh, D. Thomas, R. Timm, J. Nicolas Urbina-Cardona, K. Vasudevan, S. Joseph Wright, J. Carlos Arias-G, L. Arroyo, M. Ashton, P. Auzel, D. Babaasa, F. Babweteera, P. Baker, O. Banki, M. Bass, I. Bila-Isia, S. Blake, W. Brockelman, N. Brokaw, C. A. Bruhl, S. Bunyavejchewin, J.-T. Chao, J. Chave, R. Chellam, C. J. Clark, J.

Clavijo, R. Congdon, R. Corlett, H. S. Dattaraja, C. Dave, G. Davies, B. de Mello Beisiegel, R. d. Nazare Paes da Silva, A. Di Fiore, A. Diesmos, R. Dirzo, D. Doran-Sheehy, M. Eaton, L. Emmons, A. Estrada, C. Ewango, L. Fedigan, F. Feer, B. Fruth, J. Giacalone Willis, U. Goodale, S. Goodman, J. C. Guix, P. Guthiga, W. Haber, K. Hamer, I. Herbing, J. Hill, Z. Huang, I. Fang Sun, K. Ickes, A. Itoh, N. Ivanauskas, B. Jackes, J. Janovec, D. Janzen, M. Jiangming, C. Jin, T. Jones, H. Justiniano, E. Kalko, A. Kasangaki, T. Killeen, H.- b. King, E. Klop, C. Knott, I. Kone, E. Kudavidanage, J. Lahoz da Silva Ribeiro, J. Lattke, R. Laval, R. Lawton, M. Leal, M. Leighton, M. Lentino, C. Leonel, J. Lindsell, L. Ling-Ling, K. Eduard Linsenmair, E. Losos, A. Lugo, J. Lwanga, A. L. Mack, M. Martins, W. Scott McGraw, R. McNab, L. Montag, J. Myers Thompson, J. Nabe-Nielsen, M. Nakagawa, S. Nepal, M. Norconk, V. Novotny, S. O'Donnell, M. Opiang, P. Ouboter, K. Parker, N. Parthasarathy, K. Pisciotta, D. Prawiradilaga, C. Pringle, S. Rajathurai, U. Reichard, G. Reinartz, K. Renton, G. Reynolds, V. Reynolds, E. Riley, M.-O. Rodel, J. Rothman, P. Round, S. Sakai, T. Sanaiotti, T. Savini, G. Schaab, J. Seidensticker, A. Siaka, M. R. Silman, T. B. Smith, S. S. d. Almeida, N. Sodhi, C. Stanford, K. Stewart, E. Stokes, K. E. Stoner, R. Sukumar, M. Surbeck, M. Tobler, T. Tschardtke, A. Turkalo, G. Umapathy, M. van Weerd, J. Vega Rivera, M. Venkataraman, L. Venn, C. Vereza, C. Volkmer de Castilho, M. Waltert, B. Wang, D. Watts, W. Weber, P. West, D. Whitacre, K. Whitney, D. Wilkie, S. Williams, D. D. Wright, P. Wright, L. Xiankai, P. Yonzon, and F. Zamzani Averting biodiversity collapse in tropical forest protected areas. *Nature*, 2012.

- 2012 Scheffer, B. R., R. T. Corlett and W. F. Laurance Local demand drives a bushmeat industry in a Philippine forest reserve. *Tropical Conservation Science*, 2012.
- 2012 Alcalá, A. C., A. A. Bucol and R. M. Brown Vulnerability of Philippine amphibians to climate change. *Philippine Journal of Science*, 2012.
- 2012 Brown, R. M., C. H. Oliveros, C. D. Siler, J. B. Fernandez, L. J. Welton, P. A. C. Buenavente and M. L. L. Diesmos Amphibians and reptiles of Luzon Island (Philippines) VII: Herpetofauna of Ilocos Norte Province, northern Cordillera mountain range. *Check List*, 2012.
- 2012 Siler, C. D., J. C. Swab, C. H. Oliveros, L. Averia, A. C. Alcalá, and R. M. Brown Amphibians and reptiles, Romblon Island Group, central Philippines: Comprehensive herpetofaunal inventory. *Check List*, 2012.
- 2012 Welton, L. J., C. D. Siler, M. L. Diesmos, R. D. Lagat, R. M. Causaren, and R. M. Brown vGenetic identity, geographic ranges, and major distribution records for frugivorous monitor lizards of Luzon Island, Philippines. *Herpetological Review*, 2012.
- 2012 Spinks, P. Q., R. C. Thomson, B. Hughes, B. Moxley, R. M. Brown and H. B. Shaffer Cryptic variation and the tragedy of unrecognized taxa: The case of international trade in the spiny turtle *Heosemys spinosa* (Testudines: Geoemydidae). *Zoological Journal of the Linnean Society*, 2012.
- 2012 Sharma, P. P., P. C. Buenavente, R. M. Clouse and G. Giribet Forgotten gods: Zalmoxidae of the Philippines and Borneo (Opiliones: Laniatores). *Zootaxa*, 2012.
- 2012 Tampon, G. P., O. N. Nuñez Biacoustic analysis of advertisement calls of two groundfrogs of the genus *Platymanthis* in Mount Magdiwata, San Francisco, Agusan Del Sur, Philippines. *International Journal of Biodiversity and Conservation*, 2012.
- 2012 Siler, C. D., J. R. Oaks, C. W. Linkem, J. Swab and R. M. Brown Did geckos ride the Palawan raft to the Philippines?. *Journal of Biogeography*, 2012.
- 2012 Brown, R. M., M. B. Sanguila, C. D. Siler, M. L. L. Diesmos, and A. C. Alcalá Amphibian conservation in the Philippines. *Froglog*, 2012.

- 2012 The status of Philippine caecilians (Amphibia: Ichthyophiidae). *Froglog*, 2012.
- 2012 Diesmos, M. L. L., C. D. Siler, V. T. Vredenburg, and R. M. Brown Detecting the distribution of the chytrid fungus in the Philippines. *Froglog*, 2012.
- 2011 Phenix, E., Phenix, J. W., C. Siler and R. M. Brown *Hologerrhium philippinum*. *Herpetological Review*, 2011.
- 2011 R. M. Brown Diversity, biogeography, and conservation of Philippine amphibians. Pp. 26–49. In: Das, I., A. Haas, and A. A. Tuen (Editors). *Biology of the Amphibians in the Sunda Region, Southeast Asia*, 2011.
- 2011 McLeod, D. S., C. D. Siler, M. L. L. Diesmos, V. S. Garcia, A. O. Arkonco, K. L. Balaquit, C. C. Uy, M. M. Villaseran, E. C. Yarra, and R. M. Brown Amphibians and reptiles of Luzon Island, V: the herpetofauna of Angat Dam Watershed. *Asian Herpetological Research*, 2011.
- 2011 Brown, R. M., C. D. Siler, C. H. Oliveros and A. C. Alcala A new Gekko from Sibuyan Island. *Herpetologica*, 2011.
- 2011 Linkem, C. W. and R. M. Brown Molecular systematics of the Philippine forest skinks (Squamata: Scincidae: Sphenomorphus): testing morphological hypotheses of interspecific relationships. *Zoological Journal of the Linnean Society*, 2011.
- 2011 Siler, C. D., L. J. Welton, R. M. Brown and C. Infante *Ophiophagus hannah* (King Cobra). Diet. *Herpetological Review*, 2011.
- 2011 Siler, C. D., R. I. Crombie, and R. M. Brown Redescriptions of two poorly known slender skinks, *Brachymeles bicolor* and *Brachymeles pathfinderi* (Reptilia: Squamata: Scincidae), from the Philippines. *Journal of Herpetology*, 2011.
- 2011 Sweij, A., J. J. L. Rowley, D. Radder, M. L. L. Diesmos, A. C. Briggs, R. Brown, T. T. Cao, T. L. Cheng, R. A. Chong, B. Han, J.-M. Hero, H. D. Hoang, M. D. Kusri, D. T. T. Le, J. A. McGuire, M. Meegaskumbura, M.-S. Min, D. G. Mulcahy, T. Neang, S. Phimmachak, D.-Q. Rao, N. M. Reeder, S. D. Schoville, N. Sivongxay, N. Srei, M. Stueck, B. L. Stuart, L. S. Torres, D. T. A. Tran, T. S. Tunstall, D. Vieites, and V. T. Vredenburg Is chytridiomycosis an emerging infectious disease in Asia. *PLoS ONE*, 2011.
- 2011 Clouse, R. M., D. M. General and G. Giribet An old lineage of *Cyphophthalmi* (Opiliones) discovered on Mindanao highlights the need for biogeographical research in the Philippines. *The Journal of Arachnology*, 2011.
- 2011 Siler, C. D., L. J. Welton, J. M. Siler, J. Brown, A. Bucol and R. M. Brown Amphibians and reptiles, Luzon Island, Aurora Province and Aurora Memorial National Park, northern Philippines: new island distribution records. *Check List*, 2011.
- 2011 Brown, R. M. and C. H. Oliveros New flap-legged forest gecko (Genus *Luperosaurus*) from the northern Philippines. *Journal of Herpetology*, 2011.
- 2011 Siler, C. D., A. C. Alcala, and R. M. Brown Phylogeny of Philippine slender skinks (Scincidae: *Brachymeles*) reveals underestimated species diversity, complex biogeographical relationships, and cryptic patterns of lineage diversification. *Molecular Phylogenetics and Evolution*, 2011.
- 2011 Fuiten, A. M., L. J. Welton, A. J. Barley, B. Oberheide, M. V. Duya, E. B. Rico, and R. M. Brown A new species of stream frog (*Sanguirana*) from the mountains of Luzon Island, Philippines. *Herpetologica*, 2011.

- 2011 Amphibian Specialist Group Regional Updates: Philippines. Froglog, 2011.
- 2011 Swei, A., J. J. L. Rowley, D. Rädler, M. L. L. Diesmos, C. J. Briggs, R. Brown, T. T. Cao, T. L. Cheng, R. A. Chong, B. Han, J.-M. Hero, H. D. Hoang, M. D. Kusri, D. T. T. Le, J. A. McGuire, M. Meegaskumbura, M.-S. Min, D. G. Mulcahy, T. Neang, S. Phimmachak, D.-Q. Rao, N. M. Reeder, S. D. Schoville, N. Sivongxay, N. Srei, M. Stäck, B. L. Stuart, L. S. Torres, D. T. A. Tran, T. S. Tunstall, D. Vieites, and V. T. Vredenburg Prevalence and distribution of chytridiomycosis throughout Asia. Froglog, 2011.
- 2010 Welton, L. J., C. D. Siler, C. W. Linkem and R. M. Brown Philippine bent-toed geckos of the *Cyrtodactylus agusanensis* complex: multilocus phylogeny, morphological diversity, and descriptions of three new species. Herpetological Monographs, 2010.
- 2010 Hoffmann, M., C. Hilton-Taylor, A. Angulo, M. Böhm, T. M. Brooks, S. H. M. Butchart, K. E. Carpenter, J. Chanson, B. Collen, N. A. Cox, W. R. T. Darwall, N. K. Dulvy, L. R. Harrison, V. Katariya, C. M. Pollock, S. Quader, N. I. Ichman, A. S. L. Rodrigues, M. F. Tognelli, J.-C. Viñe, J. M. Aguiar, D. J. Allen, G. R. Allen, G. Amori, N. B. Ananjeva, F. Andreone, P. Andrew, A. L. A. Ortiz, J. E. M. Baillie, R. Baldi, B. D. Bell, S. D. Biju, J. P. Bird, P. Black-Decima, J. J. Blanc, F. Bolaños, W. Bolívar-G., I. J. Burfield, J. A. Burton, D. R. Capper, F. Castro, G. Catullo, R. D. Cavanagh, A. Channing, N. L. Chao, A. M. Chenery, F. Chiozza, V. Clausnitzer, N. J. Collar, L. C. Collett, B. B. Collette, C. F. C. Fernandez, M. T. Craig, M. J. Crosby, N. Cumberlidge, A. Cuttelod, A. E. Derocher, A. C. Diesmos, J. S. Donaldson, J. W. Duckworth, G. Dutson, S. K. Dutta, R. H. Emslie, A. Farjon, S. Fowler, J. Freyhof, D. L. Garshelis, J. Gerlach, D. J. Gower, T. D. Grant, G. A. Hammerson, R. B. Harris, L. R. Heaney, S. B. Hedges, J.-M. Hero, B. Hughes, S. A. Hussain, J. Icochea M., R. F. Inger, N. Ishii, D. T. Iskandar, R. K. B. Jenkins, Y. Kaneko, M. Kottelat, K. M. Kovacs, S. L. Kuzmin, E. La Marca, J. F. Lamoreux, M. W. N. Lau, E. O. Lavilla, K. Leus, R. L. Lewison, G. Lichtenstein, S. R. Livingstone, V. Lukoschek, D. P. Mallon, P. J. K. McGowan, A. McIvor, P. D. Moehlman, S. Molur, A. M. O. Alonso, J. A. Musick, K. Nowell, R. A. Nussbaum, W. Olech, N. L. Orlov, T. J. Papenfuss, G. Parra-Olea, W. F. Perrin, B. A. Polidoro, M. Pourkazemi, P. A. Racey, J. S. Ragle, M. Ram, G. Rathbun, R. P. Reynolds, A. G. J. Rhodin, S. J. Richards, L. O. Rodríguez, S. R. Ron, C. Rondinini, A. B. Rylands, Y. Sadovy de Mitcheson, J. C. Sanciangco, K. L. Sanders, G. Santos-Barrera, J. Schipper, C. Self-Sullivan, Y. Shi, A. Shoemaker, F. T. Short, C. Sillero-Zubiri, D. L. Silvano, K. G. Smith, A. T. Smith, J. Snoeks, A. J. Stattersfield, A. J. Symes, A. B. Taber, B. K. Talukdar, H. J. Temple, R. Timmins, J. A. Tobias, K. Tsytulina, D. Tweddle, C. Ubeda, S. V. Valenti, P. P. van Dijk, L. M. Veiga, A. Veloso, D. C. Wege, M. Wilkinson, E. A. Williamson, F. Xie, B. E. Young, H. R. Akşakaya, L. Bennun, T. M. Blackburn, L. Boitani, H. T. Dublin, G. A. B. da Fonseca, C. Gascon, T. E. Lacher, G. M. Mace, S. A. Mainka, J. A. McNeely, R. A. Mittermeier, G. M. Reid, J. P. Rodriguez, A. A. Rosenberg, M. J. Samways, J. Smart, B. A. Stein, and S. N. Stuart The impact of conservation on the status of the world's vertebrates. Science, 2010.
- 2010 Brown, R. M., C. W. Linkem, D. S. Balete, M. V. Duya, and J. H. Ferner Species boundaries in Philippine montane forest skinks (Genus *Sphenomorphus*): Three new species from mountains of Luzon and clarification of the status of the poorly known *S. beyeri*, *S. knollmanae*, and *S. laterimaculatus*. Scientific Papers, Natural History Museum, The University of Kansas, 2010.
- 2010 Brown, R. M., C. W. Linkem, C. D. Siler, J. Sukumaran, J. A. Esselstyn, D. T. Iskandar, D. Bickford, B. J. Evans, J. A. McGuire, L. Grismer, J. Supriatna, and N. Andayani Phylogeography and historical demography of *Polypedates leucomystax* in the islands of Indonesia and the Philippines: Evidence for recent human-mediated range expansion?. Molecular Phylogenetics and Evolution, 2010.
- 2010 Linkem, C. A., K. Hesed, and R. M. Brown Species boundaries and cryptic lineage

- diversity in a Philippine forest skink complex (Reptilia; Squamata; Scincidae: Lygosominae). *Molecular Phylogenetics and Evolution*, 2010.
- 2010 Linkem, C. A., and R. M. Brown A new species of scincid lizard (Genus *Sphenomorphus*) from Palawan Island, Philippines. *Herpetologica*, 2010.
- 2010 Siler, C. D., C. W. Linkem, M. Diesmos, and R. M. Brown A new species of limestone-forest frog, genus *Platymantis* (Amphibia: Anura: Ceratobatrachidae) from central Luzon Island, Philippines. *Zootaxa*, 2010.
- 2010 Welton, L. J., C. D. Siler, D. Bennett, M. R. Duya, R. Dugay, E. L. Rico, M. van Weerd, and R. M. Brown A spectacular new Philippine monitor lizard reveals a hidden biogeographic boundary and a novel flagship species for conservation. *Biology Letters*, 2010.
- 2010 Siler, C. D., J. R. Oaks, J. A. Esselstyn and R. M. Brown Phylogeny and biogeography of Philippine bent-toed geckos (Gekkonidae: *Cyrtodactylus*) contradict a prevailing model of Pleistocene diversification. *Molecular Phylogenetics and Evolution*, 2010.
- 2010 Siler, C. D., D. S. Balete and R. M. Brown A new legless Loam-swimming lizard (Reptilia: Squamata: Scincidae: Genus *Brachymeles*) from the Bicol Peninsula, Luzon Island, Philippines. *Copeia*, 2010.
- 2010 Welton, L. J., C. Siler and R. M. Brown Phylogeny-based species delimitation of southern Philippine bent-toed geckos and a new species 11 of *Cyrtodactylus* (Squamata: Gekkonidae) from western Mindanao and the Sulu Archipelago. *Zootaxa*, 2010.
- 2010 Matsui, M., A. Tominaga, W. Liu, W. Khonsue, L. L. Grismer, I. Das, A. Sudin, P. Yambun, H. Yong, J. Sukumaran, and R. M. Brown Phylogenetic relationships of *Ansonia* from Southeast Asia inferred from mitochondrial DNA sequences: Systematic and biogeographic implications (Anura: Bufonidae). *Molecular Phylogenetics and Evolution*, 2010.
- 2010 Blackburn, D, D.P. Bickford, D. T. Iskandar, R. M. Brown An ancient origin for the enigmatic flat-headed frogs (Bombinatoridae: *Barbourula*) from the Islands of Southeast Asia. *PLoS ONE*, 2010.
- 2010 Siler C. D. and R. M. Brown New loam-swimming skink, genus *Brachymeles* (Reptilia: Squamata: Scincidae) from Luzon and Catanduanes Islands, Philippines. *Journal of Herpetology*, 2010.
- 2010 Linkem C. W., C. D. Siler, E. Sy, and R. M. Brown A new species of Gekko (Squamata: Gekkonidae) from central Luzon Island, Philippines. *Zootaxa*, 2010.
- 2010 Brown R. M., M. V. Duya, H. D. Garcia, and E. B. Rico New forest gecko (Squamata; Gekkonidae; Genus *Luperosaurus*) from Mt. Mantalingajan, southern Palawan Island, Philippines. *Journal of Herpetology*, 2010.
- 2010 M. L. Diesmos, and R. M. Brown Saving Philippine Frogs. *Philippine Daily Inquirer*, 2010.
- 2009 Brown, R. M., C. D. Siler and A. C. Alcala Philippine frogs of the genus *Leptobrachium* (Anura; Megophryidae): Phylogeny-based species delimitation, taxonomic review, and descriptions of three new species. *Herpetological Monographs*, 2009.
- 2009 Rowley, J., R. Brown, R. Bain, M. Kusriani, R. Inger, B. Stuart, G. Wogan, N. Thy, T. Chanard, C. T. Trung, D. T. Iskandar, M. Lau, L. T. Ming, S. Makchai, N. Q. Truong, and S. Phimmachak Impending conservation crisis for Southeast Asian amphibians. *Biology Letters*, 2009.

- 2009 Brown, R. M., C. Oliveros and C. D. Siler Phylogeny of Gekko from the northern Philippines, and description of a new species from Calayan Island. *Journal of Herpetology*, 2009.
- 2009 Sodhi, N., T. Lee, C. Sekercioglu, E. Webb, D. Prawiradilaga, D. Lohman, N. Pierce, M. Rao, and P. Ehrlich Local people value environmental services provided by forested parks. *Biodiversity and Conservation*, 2009.
- 2009 Welton, L. J., C. D. Siler, and R. M. Brown A new bent-toed gecko (Genus *Cyrtodactylus*) from Southern Palawan Island, Philippines and clarification of the taxonomic status of *C. annulatus*. *Herpetologica*, 2009.
- 2009 Siler, C. D., A. C. Alcala, and R. M. Brown A new species of limestone forest frog, genus *Platymantis* (Amphibia; Anura; Ceratobatrachidae) from Samar Island, Philippines. *Herpetologica*, 2009.
- 2009 Siler, C. D., J. McVay, and R. M. Brown A new species of fanged frog (Dicroglossidea; genus *Limnonectes*) from southern Mindanao Island, Philippines. *Herpetologica*, 2009.
- 2009 Brown, R. M. Philippines, Biology. *Encyclopedia of Islands*, 2009.
- 2008 R. M. Brown, A. C. Alcala, and R. V. Sison Status and distribution of non-marine turtles of the Philippines. *Chelonian Conservation & Biology*, 2008.
- 2008 Brown, R. M., C. H. Oliveros and C. D. Siler A new Gekko from the Babuyan Islands, northern Philippines. *Herpetologica*, 2008.
- 2008 Posa, M. R. C., N. S. Sodhi, and T. M. Brooks Hope for threatened tropical biodiversity: Lessons from the Philippines. *BioScience*, 2008.
- 2008 Sodhi, N. S., D. Bickford, T. M. Lee, L. P. Koh, B. W. Brook, C. H. Sekercioglu, and C. J. A. Bradshaw Measuring the meltdown: drivers of global amphibian extinction and decline. *PLoS ONE*, 2008.
- 2008 Sison, R. V. Amphibians and reptiles of Verde island, Batangas Province, Philippines. *National Museum Papers*, 2008.
- 2008 R. V. Sison, M. dG. Pedregosa, and M. J. C. Ceniza The conservation status of the Philippine forest turtle *Heosemys leytensis* Taylor. *National Museum Papers*, 2008.
- 2008 Brown, R. M., and A. C. Alcala Philippine amphibian biodiversity is increasing in leaps and bounds. *Threatened Amphibians of the World*, 2008.
- 2008 Bain, R., Biju, S. D., Brown, R., Das, I., Dutta, S., Gower, D., Inger, R., Iskandar, D., Kaneko, Y., Lau, M. W. N., Meegaskumbura, M., Ohler, A., Pethiyagoda, R., Stuart, B., Wilkinson, M. and Xie, F Amphibians of the Indomalayan Realm. *Threatened Amphibians of the World*, 2008.
- 2007 Brown, R.M., Duya, M.V. A new *Luperosaurus* (Squamata: Gekkonidae) from the Sierra Madre of Luzon Island, Philippines. *Raffles Bulletin of Zoology*, 2007, 55:167-174.
- 2007 Siler, C.D., Linkem, C.W., Diesmos, A.C., Alcala, A.C. A new species of *Platymantis* (Amphibia: Anura: Ranidae) from Panay Island, Philippines. *Herpetologica*, 2007, 63(3):351-364.
- 2007 Wallach, V., R. M. Brown and G. V. A. Gee An enigmatic new species of blind snake from Luzon Island, northern Philippines, with a synopsis of the genus *Acutotyphlops*. *Journal of Herpetology*, 2007.
- 2007 Delima, E. M., and J. C. Ibanez The herpetological importance of Mt. Hamiguitan range,

- Mindanao Island, Philippines. Banwa, 2007.
- 2007 Sodhi, N.S., D. Astuti, P. Ericson, N. Ferandopulle, S. Kotagama, E. Kudavidanege, H.C. Lim, B. Lee, S. Lim, Y. Lin, D. Lohman, W. Meckvichai, H. Miranda, R. Moyle, P. Ong, K.A. Pan, D. Prawiradilaga, M.A. Rahman, A. Rahmani, F. Sheldon, M. Stoeckle, S. Sulandari, L.K.Wang, and K. Winker Barcoding Indo-Malayan birds. *Raffles Bulletin of Zoology*, 2007.
- 2007 Siler, C. D., C. W. Linkem and A. C. Alcala A new species of *Platymantis* (Amphibia: Anura: Ranidae) from Panay Island, Philippines. *Herpetologica*, 2007.
- 2007 Brown, R. M. and M. V. Duya New species of *Luperosaurus* (Squamata: Gekkonidae) from the Sierra Madre Mountain Range of Northern Luzon Island, Philippines. *Raffles Bulletin of Zoology*, 2007.
- 2006 Diesmos, M.L., Brown, R.M. Status and distribution of alien frogs in the Philippines. *Journal of Environmental Science and Management*, 2006, 2:41-43.
- 2005 J.F. Parham, B.L., Stuart, Brown, R.M. The phylogenetic position of the recently rediscovered Philippine forest turtle (Bataguridae: *Heosemys leytensis*). *Proceedings of the California Academy of Sciences*, 2005, 56(3):31-41.
- 2005 Brown, R.M., Gee, G.V.A. Preliminary report on the amphibians and reptiles of Balbalasang-Balbalan Natural Park, Kalinga Province, Luzon Island, Philippines. *Sylvatrop*, 2005, 13(1-2):63-80.
- 2004 Diesmos, A.C., Diesmos, M.L., Gee, G.V.A. Lost frogs and reptiles rediscovered on Palawan Island, Philippines. *Oryx*, 2004, 38(3):255.
- 2004 Diesmos, A.C., Lagda, M.C., Tresnado, N.F., Brown, R.M. The snake from Taal: In search of the Lake Taal sea snake. *Haring Ibon*, 2004:8-12.
- 2004 Leong, T.M. Geographic distribution: *Amphiesma sanguinea* (Smedley's keelback). *Herpetological Review*, 2004, 35(3):290.
- 2004 Diesmos, A., Palomar, N. The status of biological diversity in the Palawan Corridor. *Surublien: Strategies to Conserve Palawan's Biodiversity*, (Anda, R.D, Tabangkay-Baldera, eds.)Prov. Gov. of Palawan/Palawan Coun. for Sustainable Development Staff, DENR/MIMAROPA Region IV, Palawan NGO Network, 2004:1-7.
- 2004 Diesmos, A.C., Gee, G.V.A., M.L. Diesmos, M.L., Brown, R.M., Widmann, P.J., Dimalibot, J.C. Rediscovery of the Philippine forest turtle, *Heosemys leytensis* (Chelonia; Bataguridae), from Palawan Island, Philippines. *Asiatic Herpetological Research*, 2004, 10:22-27.
- 2004 N. Palomar The Status of Biological Diversity in the Palawan Corridor. *Surublien: Strategies to Conserve Palawan's Biodiversity*, 2004.
- 2004 G. V. A. Gee, M. L. Diesmos, R. M. Brown, P. J. Widmann, and J. C. Dimalibot Rediscovery of the Philippine Forest Turtle, *Heosemys leytensis* (Chelonia; Bataguridae), from Palawan Island, Philippines. *Asiatic Herpetological Research*, 2004.
- 2004 M. L. Diesmos, and G.V.A. Gee Lost Island, Philippines. *Oryx*, 2004.
- 2004 M. C. Lagda, N. F. Tresnado, and R. M. Brown The Snake from Taal: In Search of the Lake Taal sea snake. *Haring Ibon*, 2004.
- 2003 Diesmos, A.C. Philippine caecilians. *Animal Scene*, 2003, 3(7):74-75.

- 2003 Evans, B.J., R.M. Brown, J.A. McGuire, J. Supriatna, N. Andayani, A. Diesmos, D. Iskandar, D.J. Melnick, and D.C. Cannatella Phylogenetics of fanged frogs: testing biogeographical hypotheses at the interface of the Asian and Australian fauna)zones. *Systematic Biology*, 2003, 52:794-819.
- 2003 Evans, B. J., R. M. Brown, J. A. McGuire, J. Supriatna, N. Andayani, D. Iskandar, D. J. Melnick, and D. C. Cannatella Phylogenetics of fanged frogs: testing biogeographical hypotheses at the interface of the Asian and Australian faunal zones. *Systematic Biology*, 2003.
- 2003 Philippine Caecilians. *Animal Scene*, 2003.
- 2002 Brown, R.M., Diesmos, A.C. The lizard genus *Luperosaurus*: Taxonomy, history, and conservation prospects for some of the World's rarest lizards. *Sylvatrop*, 2002, 10(1-2):107-124.
- 2002 Diesmos, A.C., Leonida, M.L.S. Wildlife of De La Salle University, Dasmariñas Campus and a commentary on the role of the University on Philippine biodiversity research and conservation. *GSEAS Graduate Journal (DLSU-D)*, 2002, 7(2):1-27.
- 2002 Brown, R.M., Diesmos, A.C. Fernandez, R.E. The rising costs of cabbage and potatoes. *Haring Ibon*, 2002, 9:11-12.
- 2002 Infante, C.R., Brown, R.M., Diesmos, A.C., Gee, G., Dimalibot, J. The search for the lost treasure of Palawan: the Philippine Flat-headed frog . *Haring Ibon*, 2002, 8:12-15.
- 2002 Brown, R.M., Fernandez, R., Rivero, C. Buenviaje, R., Diesmos, A.C. Mt. Isarog's herpetological wonders. *Haring Ibon*, 2002, 3(3):12-17.
- 2002 Diesmos, A.C., Brown, R.M., Alcalá, A.C. A new species of narrowmouthed frog (Amphibia: Anura: Microhylidae; genus *Kaloula*) from the mountains of southern Luzon and Polillo Islands, Philippines. *Copeia*, 2002, 4:1037-1051.
- 2002 R. M. Brown, and A. C. Alcalá A new species of narrowmouthed frog (Amphibia: Anura: Microhylidae; genus *Kaloula*) from the mountains of southern Luzon and Polillo Islands, Philippines. *Copeia*, 2002.
- 2002 Brown, R. M. and A. C. Alcalá The rediscovery of two endangered species of endemic Philippine frogs: *Platymantis spelaeus* and *P. insulatus* (Anura; Ranidae). *Silliman Journal*, 2002.
- 2002 R. M. Brown, A. C. Alcalá, R. V. Sison, L. E. Afuang, and G. V. A. Gee Amphibians and Reptiles. *Philippine Biodiversity Conservation Priorities: A Second Iteration of the National Biodiversity and Action Plan*, 2002.
- 2002 M. L. S. Leonida Wildlife of De La Salle University- Dasmariñas campus and a commentary on the role of the university on Philippine biodiversity research and conservation. *GSEAS Graduate Journal (DLSU-D)*, 2002.
- 2002 Brown, R. M. The lizard genus *Luperosaurus*: taxonomy, history, and conservation prospects for some of the world's rarest lizards. *Sylvatrop*, 2002.
- 2002 Brown, R.M. and R.E. Fernandez The rising costs of cabbage and potatoes. *Haring Ibon*, 2002.
- 2002 Infante, C. R., R. M. Brown, G. Gee, and J. Dimalibot The search for the lost treasure of Palawan: the Philippine flat-headed frog. *Haring Ibon*, 2002.
- 2002 Brown, R. M., R. Fernandez, C. Rivero and R. Buenviaje Mt. Isarog's herpetological wonders. *Haring Ibon*, 2002.

- 2001 Brown, R.M., Diesmos, A.C. Application of lineage-based species concepts to oceanic island frog populations: The effects of differing taxonomic philosophies on the estimation of Philippine biodiversity. *Silliman Journal*, 2001, 42(1):133-162.
- 2001 Brown, R.M., Diesmos, A.C., Alcala, A.C. The state of Philippine herpetology and the challenges for the next decade. *Silliman Journal*, 2001, 42(10):18-87.
- 2001 Brown, R.M., Diesmos, A.C. Application of lineage-based species concepts to oceanic island frog populations: The effects of differing taxonomic philosophies on the estimation of Philippine biodiversity. *Silliman Journal*, 2001, 42(1):133-162.
- 2001 Kennedy, R.S., T.H. Fisher, S.C.B. Harrap, A.C. Diesmos, and Manamtam, A.S. A new species of woodcock (Aves: Scolopacidae) from the Philippines and a re-evaluation of other Asian/Papuan woodcock. *Forktail* 17, 2001:1-12.
- 2001 Diesmos, A.C. *Amazing Herps*. Haring Ibon, 2001, 3(1):15-17.
- 2001 Brown, R. M. and A. C. Alcala The state of Philippine herpetology and the challenges for the next decade. *Silliman Journal*, 2001.
- 2001 Brown, R. M. Application of lineage-based species concepts to oceanic island frog populations: the effects of differing taxonomic philosophies on the estimation of Philippine biodiversity. *Silliman Journal*, 2001.
- 2001 Kennedy, R. S., T. H. Fisher, S. C. B. Harrap and A. S. Manamtam A new species of woodcock (Aves: Scolopacidae) from the Philippines and a re-evaluation of other Asian/Papuan woodcock. *Forktail*, 2001.
- 2001 *Amazing herps*. Haring Ibon, 2001.
- 2000 Brown, R.M., McGuire, J.A., Diesmos, A.C. Status of frogs related to *Rana everetti* (Anura: Ranidae), description of a new species, and resurrection of *Rana igorota* Taylor 1922. *Herpetologica*, 2000, 56(1):81-104.
- 2000 Diesmos, A.C. Where the frogs are, a close watch at Philippine frogs and their habitats. *Haring Ibon*, 2000, 2(2):6-10.
- 2000 Heaney, L. R., Diesmos, A.C., Tabaranza, B., Mallari, A., Brown, R., Gee, G. Beacon of Hope, a first report from Kalinga Province in the Northern Central Cordillera. *Haring Ibon*, 2000, 2(2):14-18.
- 2000 Brown, R. M. and J. A. McGuire Status of frogs related to *Rana everetti* (Anura: Ranidae), description of a new species, and resurrection of *Rana igorota* Taylor 1922. *Herpetologica*, 2000.
- 2000 Where the frogs are: A close watch at Philippine frogs and their habitats. *Haring Ibon*, 2000.
- 2000 Heaney, L. R., B. Tabaranza, A. Mallari, R. Brown, and G. Gee Beacon of hope: A first report from Kalinga Province in the northern Central Cordillera. *Haring Ibon*, 2000.
- 1999 Brown, W.C., A.C. Alcala, P.S. Ong, and A.C. Diesmos A new species of *Platymantis* (Amphibia: Ranidae) from the Sierra Madre Mountains, Luzon Island, Philippines. *Proceedings of the Biological Society of Washington*, 1999, 112:510-514.
- 1999 Brown, W.C., Alcala, A.C., Diesmos, A.C. Four new species of *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines. *Proceedings of the California Academy of Sciences*, 1999, 51(12):449-460.
- 1999 Brown, W. C., A. C. Alcala Four new species of *Platymantis* (Amphibia: Ranidae) from

Luzon Island, Philippines. California Academy of Sciences, 1999.

- 1999 Brown, W. C., A. C. Alcalá and P. S. Ong A new species of *Platymantis* (Amphibia: Ranidae) from the Sierra Madre Mountains, Luzon Island, Philippines. Biological Society of Washington, 1999.
- 1998 Alcalá, A.C., Brown, W.C., Diesmos, A.C. Two new species of the genus *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines. Proceedings of the California Academy of Sciences, 1998, 50(17):381-388.
- 1998 Alcalá, A. C. and W. C. Brown Two new species of the genus *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines. California Academy of Sciences, 1998.
- 1997 Alcalá, A.C., Custodio, C.C., Diesmos, A.C., Gonzalez, J.C.T. List of amphibians from Mt. Makiling with notes on their population status. *Sylvatrop*, 1997, 5(1-2):65-71.
- 1997 Brown, R.M., Ferner, J.W., Diesmos, A.C. Definition of the Philippine Parachute Gecko, *Ptychozoon Intermedium* Taylor 1915 (Reptilia: Squamata: Gekkonidae): redescription, designation of a neotype, and comparisons with related species. *Herpetologica*, 1997, 53(3):357-373.
- 1997 Brown, W.C., Alcalá, A.C., Diesmos, A.C., Alcalá, E. Species of the *guentheri* group of *Platymantis* (Amphibia: Ranidae) from the Philippines, with descriptions of four new species. Proceedings of the California Academy of Sciences, 1997, 50(1):1-20.
- 1997 Brown, W.C., Alcalá, A.C., Diesmos, A.C. A new species of *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines. Proceedings of the Biological Society of Washington, 1997, 110(1):18-23.
- 1997 Alcalá, A. C., C. C. Custodio, and J. C. T. Gonzalez List of amphibians from Mt. Makiling with notes on their population status. *Sylvatrop*, 1997.
- 1997 Brown, R. M. and J. W. Ferner Definition of the Philippine Parachute Gecko, *Ptychozoon intermedium* Taylor 1915 (Reptilia: Squamata: Gekkonidae): redescription, designation of a neotype, and comparisons with related species. *Herpetologica*, 1997.
- 1997 Brown, W. C., A. C. Alcalá and E. Alcalá Species of the *guentheri* group of *Platymantis* (Amphibia: Ranidae) from the Philippines, with descriptions of four new species. California Academy of Sciences, 1997.
- 1997 Brown, W. C. and A. C. Alcalá A new species of *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines. Biological Society of Washington, 1997.
- 1996 Curio, E., Diesmos, A.C., Mallari, N.A.D., Altamirano, R.A.N. The Mindoro Scarlet-collared Flowerpecker *Uicaea retrocinctum*-an alleged single-island endemic. *Journal für Ornithologie*, 1996, 137:361-365.
- 1996 Curio, E., N. A. D. Mallari, and R. A. N. Altamirano The Mindoro Scarlet-collared Flowerpecker *Dicaeum retrocinctum*—an alleged singleisland endemic. *Journal für Ornithologie*, 1996.
- 1994 Danielsen, F., D. S. Balete, T. D. Christensen, M. Heegard, O. F. Jacobsen, A. Jensen, T. Lund, and M. K. Poulsen Conservation of Biological Diversity in the Sierra Madre Mountains of Isabela and Southern Cagayan Province, The Philippines. Department of Environment and Natural Resources and International Council for Bird Preservation, 1994.
- Diesmos, A. C. Philippine frogs: *Platymantis spelaeus* and *P. insulatus* (Anus: Ranidae). *Silliman Journal*, , 43(1):91-109.

Brown, R.M., Diesmos, A.C., Alcala, A.C. Review: Philippine amphibian biodiversity is increasing in leaps and bounds. *Threatened Amphibians of the World*, Stuart, S.N, Hoffmann, M., Chanson, J.S., Cox, N.A., Berridge, R., Ramani, P. and Young, B.E. (Editors) Lynx Ediciones: Washington DC., .

Welton, L.J., C.D. Siler, J.R. Oaks and R.M. Brown Multilocus phylogeny and Bayesian estimates of species boundaries reveal hidden evolutionary relationships and cryptic diversity in Southeast Asian monitor lizards. *Molecular Ecology*, .

**Name** Ramiro P. Escobin  
**Place of Birth** Los Baños, Laguna  
**Date of Birth** July 28, 1956  
**Gender** Male  
**Civil Status** Single  
**Home Address** 12719 Road 4, Bernardo Village, Mayondon, Los Baños, Laguna  
4030

**Organizational Affiliations**

Senior Science Research Specialist, FPRDI, DOST, College, Laguna

**Education**

Ph.D. in Botany, University of the Philippines Los Baños, Los Baños, Laguna, Philippines 1997

M.S. in Botany, University of the Philippines Los Baños, Los Baños, Laguna, Philippines 1988

B.S. in Forestry, University of the Philippines Los Baños, Los Baños, Laguna, Philippines 1978

**Fields of Specialization**

Botany

Agriculture

Forestry

**Employment**

Timber Management Supervisor, Aguinaldo Development Corporation, Maco, Davao del Norte, 1978 Jnee -1980 March

Science Research Specialist I, Forest Products Research and Industries Development Commission (FORPRIDECOM), 1981 Nov.-1982 Jan

Science Research Specialist I, Forest Products Research Development Institute (FPRDI), College, Laguna, 1982 Jan.-1988 Nov.

Science Research Specialist II, FPRDI, College, Laguna, 1988 Nov.-1996 July.

Senior Science Research Specialist, FPRDI, College, Laguna, 1996 July-2001 Dec.

Supervising Science Research Specialist, FPRDI, College, Laguna, 2001 Dec.-present

**Association Membership**

Member, Weed Science Society of the Philippines

Member, National Research Council of the Philippines

Member, Association of Systematic Biologists of the Philippines

Member, Society of Filipino Foresters

Member, UPLB Alumni Association

**Honors / Awards**

ITTO Fellowship Award, International Tropical Timber Organization (ITTO) 2004  
DOST Certificate of Merit., Department of Science and Technology (DOST) 1997  
FPRDI Certificate of Recognition, FPRDI 5 July 1988  
FPRDI Plaque of Recognition, FPRDI 4 July 1997  
FPRDI Research Chair holder 2003-2004, FPRDI 2003-2004  
FPRDI Service Award, FPRDI 5 July 2005  
FPRDI Certificate of Accreditation as Resource Person/Expert, FPRDI 30 April, 2013  
3rd Best Technical Seminar Speaker, FPRDI Technical Seminar Series 4 July 2008  
3rd Place Paper Presentation, FPRD Technical Seminar Series 2007  
2nd Place in Technical Paper Competition, FPRD Technical Seminar Series 4 July 2008

### **Trainings**

Moral Recovery, Forest Products Research and Development Institute. DOST. College, Laguna September 8, 2000

Utilization of Extracted Tea Leaves for Composite Boards, FPRDI Conference Hall, FPRDI, DOST. College, Laguna September 27, 2012

Impact Assessment of Selected FPRDI Technologies: FTLD Utilization, FPRDI Conference Hall. Forest Products Research and Development Institute, DOST. College, Laguna September 27, 2012

MS PowerPoint Application, Forest Products Research and Development Institute. Dost. College, Laguna September 18 and 27,

Making the Green Choice: FPRDI's Contribution to the Philippine Ecolabelling Program, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna September 15, 2011

Training on Fiber Morphology of Wood and Non-Wood Materials, FPRDI, DOST. College, Laguna October 3-7, 2011

FPRDI - Stakeholder's Consultative Meeting, Forest Product Research and Development Institute. DOST. College, Laguna October 3, 2012

Currents Trends in Forest Products Research, MSD Conference Room, Forest Products Research and Development Institute. DOST. College, Laguna October 29, 2013

Seminar on Republic Act No. 9184 (R.A. 9184) and its Implementing Rules and Regulations (IRR), National Irrigation Administration (NIA)-DCIEC Convention Hall, EDSA, Quezon City. Department of Budget October 15-16, 2003

Awareness Seminar on REDI ASEAN 2015, Kapihan sa MSD. MSD Conference Room. Forest Products Research and Development Institute, College, Laguna October 14, 2011

Enhancing NRCP's Role in Gender Responsiveness (In Celebration of 11th National Statistics Month)., Balay Kalinaw, UP Diliman, Quezon City. National Research Council of the Philippines. Bucutan, Taguig October 12, 2000

Internet Navigation, Forest Products Research and Development Institute. Dost. College, Laguna October 1, 1998

New Frontiers in Forest and Natural Resources Research., ERDB Auditorium, College, Laguna. Forest and Natural Resources Research Society of the Philippines, November 30

and Dec.

Fruits and Seeds: Important Materials for Handicrafts, MSD Conference Room, Forest Products Research and Development Institute. DOST. College, Laguna November 28, 2013

Myths and Realities: The role of Forests in Disaster Risk Reduction and Mangement (DRRM), Forests and Natural Resources Research Society of the Philippines, Inc. (FORESPI). E.O. Tan Hall PCA November 24, 2011

FPRDI Strategic Planning Workshop for 2014-2016, Engineered Products Development Section (ESPD) Conference Room, Forest Products Research and Develop Nov. 22, 2013

Experimental Designs and Regression Analysis, National Statistical Coordination Board . Statistical Research and Training Center . FPRDI, College, May 6-17, 1991

Fiber Morphology of Abaca, Jute, Kenaf and Sisal, MSD Conference Room, Forest Products Research and Development Institute. DOST. College, Laguna May 28, 2013

Fundamentals of Material Science and Engineering, Kapihan sa MSD. SDES Conference Room, FPRDI College Laguna May 27, 2011

Evaluation of Lemon Scented Gum Volatile Oil Against Termites, KAPIHAN SA MSD, SDES Conference Room, FPRDI, College, Laguna May 17, 2012

Chemistry and Anti-Fungal Properties of Essential Oils from Cambodian Grown Dipterocarpus alatus, KAPIHAN SA MSD, SDES Conference Room, FPRDI, College, Laguna May 17, 2012

Modeling the Flexural Behavior of Structural Engineered Bamboo, FPRDI-Conference Hall, College, Laguna May 17, 2012

Design and Construction of LOSP (Light Organic Solvent Preservatives) Treatment Plant, FPRDI Conference Hall, College, Laguna May 17 2012

Assesment of the Furniture and Handicraft Industries Science and Technology (FHIST) Small and Medium, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna May 12, 2011

Technology Management: Its Role in Technology Transfer, FPRDI Conference Hall. FPRDI. DOST , College, Laguna May 12, 2011

Futures of Furnace Type Lumber Dryer (FTLD) thru Scenatrion Building, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST, College, Laguna May 12, 2011

Orientation Seminar on Praise, Grievance Machinery and Merit Selection Plan, Forest Research and Development Institute-Deparment of Science and Technology. College, Laguna. March 4, 2003

The FPRDI Scanning Electron Microscope, Kapihan sa MSD. SDES Conference Room, FRPDI, College Laguna March 31, 2011

Almaciga (*Agathis philippinensis* Warb.): Valuable but Diminishing Forest Tree Species in the Philipp, FPRDI Conference Hall. Forest Products Research and Development Institute, Dost. College, Laguna March 27, 2012

Echo-Seminar on Prior Art Research, FPRDI Conference Hall. FPRDI, DOST. College, Laguna March 27, 2012

National Workshop on Biodiversity Research and Development., ERDB Auditorium. Protected Areas And Wildlife Bureau (PAWB) and Ecosystems Research and Development March 20-21, 2002

Orientation on GAD Concepts and Gender Responsive Planning Budgeting, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna March 2-3, 2010

Windows Application Softwares for Researchers, Forest Products Research and Development Institute. DOST. College, Laguna March 18-25, 1996

Wood Identification of Expensive Woody Art Collection, Mostly Religious Images Deposited at San Agus, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna March 17, 2011

70th NRCP Annual Meeting. Theme: "Advancing the Frontiers of Knowledge for National Development and We, Fiesta Pavilion, Manila Hotel, Rizal Park, Manila. National Research Council for the Philippines. Ge March 15 2003

71st NRCP Annual Meeting. Theme: "University-Industry-Government Collaboration in research and Development, Polkabal-Rigodon Hall, Manila Hotel, Rizal Park, Manila National Research Council of the Philippines March 13, 2004

7th NRCP General Membership Assembly. Theme: "Basic Research for National Development", Polkabal/Rigodon Hall, Manila Hotel, Rizal Park, Manila National Research Council of the Philippines March 12, 2008

67th NRCP Annual Meeting. Theme: "Intensive Basic Research for Technological Development and Innovation, EDSA Plaza Shangri-La Hotel, Ortigas Center, Mandaluyong City. National Research Council of the Philippines March 11, 2000

Planning Workshop for the Preparation of Five-Year R&D and S&T Program of FPRDI, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna June 4-6, 12 & 26, 2

Integrated Productivity Course for Supervisors and Managers (5s/ISTV), FPRDI. DOST. College, Laguna June 21 2006

Dimensional Metrology Basic Measurement, FPRDI Conference Hall, College, Laguna June 14, 2012

E-Government Project Management, FPRDI-Conference Hall, College, Laguna June 14, 2012

Generation of Technical Basis for the Development of Standards for Engineered Bamboo, FPRDI-Conference Hall, College, Laguna July 5, 2012

Communicating the CBFM Strategy: People First and Sustainable Forestry will Follow, FPRDI Conference Hall. FPRDI, DOST. College Laguna July 31, 2012

FPRDI Pulp and Paper Testing Laboratory, FPRDI Conference Hall. Forest Products Research and Development Institute, DOST. College, Laguna July 31, 2012

Grasses and Sedges: Promising Materials for Handicraft, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna July 28, 2011

A Review of the Technology Transfer and Commercialization Potential of Fold Away Shelter (F-Shelter), FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna July 28, 2011

Government Auditing Rules and Regulations-Travel Expenses, FPRDI Conference Hall

Products Research and Development Institute, DOST. College, Laguna July 25, 2012

Preparation of Trial Balance and Financial Statements, FPRDI Conference Hall. FPRDI, DOST. College. Laguna July 25, 2012

Preparation of a Research Proposal, Forest Products Research and Development Institute, College, Laguna. Department of Science and Techn July 24, 2004

Powerful Presentation Techniques, Forest Products Research and Development Institute, College, Laguna. Department of Science and Techn July 24, 2004

Stress Management, FPRDI, Los Baños Laguna. Personnel Officers Association of the Philippines, Inc. Room 310 Delta Bld July 22-23, 2010

International Research Training Seminar on Reduced-Impact Timber Harvesting and Natural Forest Manag, Bogor and East Kalimantan, Indonesia July 14-27 1996

FPRDI Strategic Planning Workshop, Splash Moutain Resort Hotel, Forest Products Research and Development Institute.DOST. College, Lagun Jan 8-9, 2009

FPRDI Strategic Planning Workshop, PPRTC Conference Hall. FPRDI. DOST. College, Laguna Jan 20-21, 2011

FPRDI Strategic Planning Workshop, PPRTC Conference Hall. Forest Products Research and Development Institute, DOST. College, Laguna Feb. 6-7, 2012

DOST-SCS-PACS Meeting, Crown Regency Hotel, Makati City. DOST - Scientific Career System and Philippine Association of Care Feb 11, 2009

Preservation of the Green Color of Kauayan Tinik (*Bambusa blumeana* Schultes f.) and Kauyan Killing (, FPRDI Conference Hall. FPRDI. DOST. College, Laguna December 6, 2011

FPRDI Technical Seminar Series Certifivate of Appreciation, FPRDI, DOST. College, Laguna December 6, 2011

Carrageenan as Dry Strength for Packaging Paper, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna December 6, 2011

FPRDI Strategic Planning Workshop, PPRTC Conference Room, Forest Products Research and Development Institute. DOST. College Laguna December 14, 2012

Participation at the 5th Fair Internation Inventions and Innovation Exhibition at Tehran, Iran, MSD Conference Room, Forest Products Research and Development Institute. DOST. College Laguna August 5, 2013

Philippine Raw Materials Sourcebook IV: Furniture, Woodcarving, Decors, Gift and Accessories, Forest Products Research and Development Institute. DOST. College, Laguna August 27, 2013

18th STARRDEC-Regional Symposium on Research and Development Highlights (STARRDEC-RSRDH), Ricelan INN II, Calapan City, Oriental Mindoro. The Southern Tagalog Agriculture and Resource Resear August 24, 2005

Yield Determination and Utilization of the Condensate from the Charcoaling Process of Bamboo, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST, College, Laguna April 7, 2011

Finishing of Thermally Modified Malapapaya Wood: An Improved Performance of Formulate Almaciga Resin, FPRDI Conference Hall. Forest Products Research and

Development Institute. DOST. College, Laguna April 7, 2011

Biofuels and R&D at FPRDI, FPRDI Conference Hall. Forest Products Research and Development Institute. DOST. College, Laguna April 7 2011

An Echo-Seminar on Chemical Management, MSD Conference Room, Forest Products Research and Development Institute. DOST. College, Laguna April 10, 2013

Team Building Seminar-Workshop Towards a More Productive Performance, Forest Products Research and Development Institute/ PCCARD. DOST. College, Laguna April 1-3, 2003

Preparation of a Research Proposal & Powerful Presentation Techniques, FPRDI, College, Laguna 2004 July 21

Intellectual Property Rights, FPRDI, College, Laguna 2004

Orientation Seminar on Praise, Grievance Machinery and Merit Selection, FPRDI, College, Laguna 2003 Mar 4

Team Building Seminar-Workshop Towards a More Productive Performance, FPRDI, College, Laguna 2003 April 1-3

Seminar-workshop for the Philippine R&D Agenda on Biodiversity, Forestry Campus, UPLS, College, Laguna 2002 Mar. 20-21

National Symposium for Sustainable Mountain Development, Mt. Makiling, Los Baños, Laguna, Philippines 2002 July 27-28

Training Course on MS PowerPoint Application, FPRDI, College, Laguna 2000 Sept 8-19

Seminar-Workshop on Enhancing NRCP's Role in Gender Responsiveness, NRCP 2000 Oct. 12

Internet Navigation, FPRDI, College, Laguna 1998 Oct. 1

Third Beenet Conference and Techno-Fora, Institute of Biological Sciences, University of the Philippines Los Banos 1997 Aug. 15-17

Windows Application Software for Researchers, FPRDI, College, Laguna. 1996 March 18-25

Reduced-Impact Logging and Natural Forest Management Training Workshop, Bogor and East Kalimantan, Indonesia. CIFOR, FAO and USAID 1996 July 15-27

Statistical Analysis and Regression Analysis of Data, NSTC, FPRDI 1991

Economic Analysis of Data, STARRDEC 1990

National Symposium on Forestation Research and Practices, UPLB/CFNR, College, Laguna 2002 April 16-17

Moral Recovery Seminar-Workshop, FPRDI, College, Laguna 1998 Sept. 8

Wood Anatomy Training Course, PROSEA, Forest Research Institute, Kepong, Kuala Lumpur, Malaysia (FRIM) 1994 Jan. 9-16

Strengthening Policy and Research Linkages in Environment and Natural Management, (FORESPI) and (FDC), ERDB Auditorium, College, Laguna, Philippines

Microbiology and Forest Products utilization Research and Development, FPRDI Conference Hall. Forest Products Research and Development Institute, DOST. College, Laguna

Intellectual Property Rights, Forest Products Research and Development Institute, College, Laguna. May 8, 2003

## **Researches**

### **Completed**

Identification Handbook of Philippine Bast Fiber-Producing Tree and Shrubs

Identification manual of climbing bamboos in the Philippines

Wood anatomical properties of big-leafed mahogany (*Swietenia macrophylla* King and malapapaya (*Polycias nodosa* (BLUME) Seem.)

### **On-going**

Identification Handbook of Philippine Commercial and Potentially Commercial Woody Forest Issues.

Identification Handbook of Philippine Medicinal Tree

Manual on Industrial Tree Plantation species (ITPS): Yemane and Moluccan Sau

## **Papers Presented**

(September 6, 2001). Identification Handbook of Philippine Medicinal Trees, FPRDI Conference Room, College, Laguna.

(Oct. 4 2007). Raw Materials Sourcebook: Non-Wood Forest Products for Furniture and Handicrafts FPRDI Technical Seminar Series, PPTC Conference Hall, Forest Products Research and Development Institute, College, Laguna.

(Oct. 21, 2013). FPRDI Technical Seminar Series, Executive Order 23 and Wood Identification, TSD Conference Room, Forest Products Research and Development Institute, College, Laguna.

(Oct. 01-05, 2001). Training Course on Wood Identification and Pole Maintenance, Training and Demonstration Center, FPRDI, College, Laguna.

(November 1999). Identification Handbook of Philippine Bast Fiber-producing Trees and Shrubs, FPRDI Conference Room.

(May 15, 2003). Training on Wood Structure and Identification, FPRDI Conference Room. College, Laguna.

(June 25 2003). Identification of Philippine Climbing Bamboos: *Dinochloa* and *Cryptochloa*, FPRDI Conference Hall, College, Laguna.

(June 12, 2008). FPRDI Technical Seminar Series, Enhancing the Service Capabilities of the FPRDI Herbarium and Xylarium: Project Accomplishment Report, FPRDI Conference Hall, College, Laguna.

(July 16, 1997). Pollination Biology of Four Reforestation Tree Species in Mt. Makiling, Luzon, Philippines, FPRDI Conference Room, College, Laguna.

(Aug. 23 2013). 2013 Kapihan sa MSD (Technical Seminar Series) Wood Structure and Identification, MSD conference Room Forest Products Research and Development Institute, College, Laguna.

(7-8 Feb. 2013). Refresher Course on Wood Structure & identification & Training Orientation on the Conversion of AILTF from Civilian to Active Military Operation, Grand Men Seng Hotel, Davao City..

(6 Sept. 2001). Bast Fibers from Philippine Treea and Shrubs", DZMM "Bago Yan Ah",

DZCA, DZRM, "Radio Magazin and RPOB, "Kalakalan 2002".

(28-29 April 1992). Wooden Boat Building Technology Innovation. Maritime Industry Authority (MARINA), Legazpi City.

(26 Aug. 2008). Medicinal Plants of the Philippine, RPOB;s "ito Ang Inyong Lingkod, Kalakalan 2008".

(24 August 2005). The Southern Tagalog Agriculture and Resources Research and Development Consortium (STARRDEC) 'Philippine Climbing Bamboos : A Potential Resource for the Furniture and Handicraft Industry, Calapan, Oriental Mindoro.

(24 August 2000). 13th Regional Symposium on Research and Development, Bast Fiber-Producing Trees and Shrubs for the Handicraft Industry, Marinduque State College, Tanza, Boac, Marinduque.

(24 Aug 2000). Philippine Bast Fiber-Producing trees and Shrubs for the Handicraft Industry, 13th STARRDEC Regional Symposium on R & D Highlights, Marinduque State College, Boac, Marinduque.

(23-27 Feb. 2004). Pollination Ecology of Four Reforestration Tree Species in Mt. Makiling, Luzon Island Philippines, Seventh Asian Apicultural Association Conference and Tenth BEENET Symposium and Technofora. SEARCA Auditorium, UPLB, College, Laguna.

(21-25 June 1999). Training Course on Wood Identification for Poles., FPRDI, DOST, College, Laguna.

(21 October 2004). Climbing Bamboos for Furniture and Handicraft, DZMM "Bago Yan Ah".

(21 August 2008). Medicinal Plants of the Philippine, DZEM's "Balita, Impormasyon at paalala".

Escobin, R.P., Payawal, P.C., Cervancia, C.R. (2004). Pollination Ecology of Four Reforestation Tree Species in Mt. Makiling, Luzon Island, Philippines, 7th Asian Apicultural Association Conference and 10th BEENET Symposium and Technofora, University of the Philippines, Los Banos, Laguna.

Rojo, J.P., Escobin, R.P. (1991). Standing Volume of Dipterocarps viz-a-viz Non-commercial Species in Recently Logged-over Forests of the Philippines, 2nd Roundtable Conference for Dipterocarps, Bogor, Indonesia .

(1988). Wood Anatomy and Identification, FPRDI, College, Laguna.

(19 August 2004). Climbing Bamboos for Furniture and Hadicraft, RPOB, Radio Filipinas Overseas Broadcast Kalakalan.

(19 Aug 2008). Medicinal Plants of the Philippine, DZRM's "Radio Magazine".

(15 Nov. 2002). Philippine Forest Vines for Furniture and Handicraft Industries, DZJV 1458KHz "Magkwentuhan Tayo" The International Relations and Trade, Office of Governor, Laguna.

(15 Nov. 2002). Woody Forest Vines for Furniture and Handicraft Industries, DZMM "Bago Yan Ah" , DZEM, "Journey to Discovery", DZRM, "Radio Magazine", RPOB, Kalakalan 2002, RPOB, Kalaamang S&T.

(14 March 2008). Orientation/Reorientation Training/ Workshop on Forestry Laws, Rules and Regulations, DENR-NCR Multi-Purpose Hall, Nursery Compound, North Avenue, Diliman, Quezon City.

(14 March 2008). Training on "Wood Identification" DENR-NCR Orientation/Reorientation Training/Workshop on Forestry Laws, Rules and Regulations, DENR-NCR Multipurpose Hall, Nursery Compound, North Avenue, Diliman, Quezon City.

(10 Aug. 2012). Chemical Application for Wood Pests and Wood Identification, PMR Pallets Limited, Laguna International Industrial Park (LIIP), Barangay Mamplasan, Biñan, Laguna.

## Publications

- 2014 F.C. Pitargue, JR The Taxonomy and Utilization of Two Closely Related Philippine Pandanus Species. Philippine Forest Products Journal, 2014.
- 2014 W.M. America, F.C. Pitargue, Jr. J.M. Conda Revised Wood Identification Handbook. FPRDI-PCAARRD-DOST, 2014.
- 2012 Pitargue, JR. F.C., RA.. Natividad, PQ. Lontok Some Useful Plants of the Batanes Islands. Ecosystems and Development, A Journal on Tropical Forests and Natural Resources, 2012.
- 2012 Pitargue, Jr. F.C., R.A. Natividad and E.R. Barile Philippine Raw Materials Sourcebook 4: Furniture Woodcarvings, Decors, Gifts and Accessories. FPRDI-DOST, 2012.
- 2012 Peeking thru the Lens: A look at FPRDI's Wood Identification Service. FPRDI S&T Updates, 2012.
- 2011 R.A. Natividad & F.C. Pitargue, Jr. Fruits and Seeds: Promising Materials for Handicrafts. FPRDI S&T, 2011.
- 2010 Ramos, MDR., FC. Pitargue, Jr., WM. America Wood Anatomy of Teak (*Swietenia macrophylla* king.)Thinnings. FPRDI Journal, 2010.
- 2010 Maruzzo, M.M., W.M. America Anatomical properties of big-leafed mahogany (*Swietenia macrophylla* King) and malapapaya [*Polycias nodosa* (Blume) Seem.]. FPRDI Journal, 2010.
- 2010 Austria, C.O. Skeletonized/Fossilized Leaves of Selected Philippine Plants. FPRDI-DOST, 2010.
- 2010 R.A. Natividad and F.C. Pitargue, Jr Philippine Raw Materials Sourcebook. DOST-SETUP, FPRDI-DOST, 2010.
- 2010 Climbing Bamboos for Handicraft. FPRDI S&T, 2010.
- 2009 R.A. Natividad and F.C. Pitargue, Jr. Philippine Raw Materials Sourcebook. DOST-SETUP, FPRDI-DOST, 2009.
- 2009 A.B. Ella, J.M. Meniado, M.M. Maruzzo and W.M. America Anatomical identification Handbook of Philippine Dipterocarps. FPRDI-DOST, 2009.
- 2008 Maruzzo, M.M., W.M. America Wood anatomical properties of big-leafed mahogany (*Swietenia macrophylla* King) and malapapaya [*Polycias nodosa* (Blume) Seem.]. FPRDI Journal, 2008.
- 2008 Seedling identification of major dicotyledonous weeds in plantations of fast-growing tree species in Mt. Makiling, Luzon, Philippines. FPRDI Journal 29, 2008.
- 2008 A.B. Ella, A.L. Toñgacan, F.C. Pitargue, Jr. Philippine Woods: Principal Uses, Distribution and Equivalent Woods in Asia Pacific. Forest Products Research and Development Institute (FPRDI, DOST, 2008.

- 2008 F.C. Pitargue Jr. M. D.R. Ramos and W.M. America The identification and utilization of Philippine climbing baboos. FHIST Newsletter, 2008.
- 2008 Gernando C. Pirtargue, Jr. Robert A. Natividad Vayasubas and voyayoy: Two indigenous plants from Batanes for handivrafts. FHIST Newsletter, 2008.
- 2007 F.C. Pitargue, Jr. Identification Handbook of Bast Fiber Producing Plants. Forest Products Research and Development Institute (FPRDI), 2007.
- 2007 Robert A. Natividad and F.C Pitargue, Jr Philippine Raw Materials Sourcebook. DOST SETUP . FPRDI-DOST, 2007.
- 2006 Pitargue, F.C., Ramos, Jr.M., America, W.M. The identification and utilization of Philippine climbing bamboos. FPRDI Journal, 2006, 28(1-2):80-91.
- 2006 F.C. Pitargue, JR. M. DR. Ramos and W.M. America The identification and utilization of Philippine climbing bamboos. FPRDI Journal 28, 2006.
- 2006 R.A. Natividad Preparation of Raw Materials Sourcebook for Furniture and Handicrafts. FHIST Newsletter, 2006.
- 2005 Banatica, M.C.N. Identification Handbook of Philippine Commercial and Potentially Commercial Forest Vines. Forest Products Research and Development Institute (FPRDI), Department of Science and Technology (DOST), Philippines, 2005:199.
- 2005 Pitargue, F.C., Ramos, Jr.M., Maruzzo, M.M., America, W.M. Identification manual of climbing bamboos in the Philippines. Forest Products Research and Development Institute (FPRDI), Department of Science and Technology (DOST), College, Laguna, Philippines, 2005:105.
- 2005 M.C.N. Banaticla Identification Handbook of Philippine Commercial and Potentially Commercial Forest Vines. FPRDI , DOST, 2005.
- 2005 F.C. Pitargue, Jr., M.DR. Ramos, M.M. Maruzzo and W.M. America Identification Manual of Climbing Bamboos in the Philippine. FPRDI , DOST, 2005.
- 2004 Timber trees: Minor commercial timbers. Plant Resources of South East Asia (PROSEA), 2004, 5(2):78-84.
- 2004 Identification and utilization of eight Philippine major commercial forest vines for the handicraft industry. FPRDI Journal, 2004, 26(1-2):136-148.
- 2004 Pollination syndrome and breeding system of four reforestation tree species in Mt. Makiling, Laguna, Philippines. The Philippine Agricultural Scientist, 2004, 87(2):182-190.
- 2004 P.C. PAYAWAL and C.R CERVANCIA Pollination Syndrome and breeding system of four reforestation tree species in Mt. Makiling, Luzon, Philippines. Philippine Agric. Science, 2004.
- 2004 M. C. N. Banaticla Identification and utilization of eight Philippine major commercial forest vines for the handicraft industry. FPRDI Journal 26, 2004.
- 2004 F. C. Pitargue, Jr Identification and utilization of five Philippine medicinal trees. FPRDI Journal 26, 2004.
- 2003 Medicinal and poisonous plants. Plant Resources of South-East Asia No. 12(3), 2003, 12(3):142.
- 2003 Fibre plants. Plant Resources of South-East Asia, 2003, 17:86-91.
- 2003 Crocosmia x Crocosmiiflora (Lemoine ex E. Morren) N.E. Br In Lemmens, R.H.M.J. and

- Bunyapraphatsara, N. Plant Resources of South East Asia. Medicinal and poisonous plants 3. Backhuys Publishers, Leiden, The Netherlands, 2003.
- 2003 Gunnera macrophylla Blume In: Lemmens, R.H.M.J. and Bunyapraphatsara, N.. Medicinal and poisonous plants 3. Backhuys Publishers, Leiden, the Netherlands, 2003.
- 2003 Philydrum lanuginosum Banks and Sol.. Medicinal and poisonous plants 3. Backhuys Publishers, 2003.
- 2003 Wahlenbergia marginata (Thunberg) A.DC.. Medicinal and poisonous plant 3. Backhuys Publishers, 2003.
- 2003 Xyris L. Medicinal and poisonous plants 3. Backhuys Publishers, 2003.
- 2003 Boehmeria nivea (L.) Gaudich. Fibre plants. Backhuys Publishers, 2003.
- 2003 S.H. Windodo Urena lobata L.. Fibre plants. Backhuys Publishers, 2003.
- 2003 Minor fibre plants: Algelaea bomeensis, Bauhinia integrifolia, Ficus odorata, Flagellaria indica, Grewia bilamellata, Hypserpa nitida, Ichnocarpus frutescens, Malvastrum coromandelianum Pothoidium lobbianum. Fibre plants. Backhuys Publishers, 2003.
- 2003 M. Brink and H.A.M. Van Der Vossen Introduction. In: Plant Resources of South-East Asia. Fibreplants. Backhuys Publishers, 2003.
- 2001 J.P. Rojo Floral biology of Pterocarpus indicus Willd. Sylvatrop Tech. J. Philipp., 2001.
- 2000 Floral biology of Pterocarpus indicus Willd.(Narra): Distinctive, pollination syndrome. Sylvatrop Technology Journal of the Philippines, Ecosystems and Natural Resources, 2000, 6(2):29-45.
- 2000 Banaticla, M.C.N. The identification and utilization of 8 Philippine major commercial forest vines for the handicraft industry. FPRDI Journal, 2000, 26(1 &2):121-135.
- 2000 Rojo, J.P., Pitargue, F.C. Identification handbook of Philippine bast fiber-producing trees and shrubs. Terminal Report FPRDI Library, College, Laguna, 2000:305 pp..
- 1998 Cervancia, C.R. Insect floral visitors of four reforestation tree species in Mt. Makiling, Laguna, Philippines. Phil. Journal of Science, 1998, 127(2):169-180.
- 1998 Seedling identification of major weeds in plantation of fast growing tree species in Mt. Makiling, Philippines.. I. monocotyledon Phil. J. Sci., 1998.
- 1996 Macaranga tree density variation in felling gaps of logged-over forests in East Kalimantan, Indonesia. Research Methods for Reduced-Impact Logging: Workshop Results, CIFOR, 1996:51-53.
- 1996 Macaranga tree density variation in felling gaps of logged-over forests in East Kalimantan, Indonesia. F.E. Putz, Elias, P. Sist, D.P., 1996.
- 1995 Beilschmiedia Nees (Lauraceae) (Wood anatomy). Minor Commercial Timbers. Backhuys Publishers, 1995.
- 1993 Rojo, J.P. Seed identification of major weeds in plantations of fast-growing tree species in Mt. Makilin, Laguna, Philippines. Sylvatrop: The Technical Journal of Philippine Ecosystems and natural Resources, 1993, 3(1):21-48.
- 1993 Bella, B. Taxonomy and wood anatomy of the Manggasinoro species (Shorea spp.): Dipterocarpaceae. Philippine Journal of Science, 1993, 122(3):205-232.

- 1993 J.P. Rojo Seed identification of major weeds in plantations of fast growing tree species. Sylvatrop Tech. J. Philipp, 1993.
- 1992 Aragones, E.G., Ella, A.B., Rojo, J.P. Resource survey of woody forest vines in five provinces of the Philippines. FPRDI Journal, 1992, 21(3 & 4):69-78.
- 1992 Rojo, J.P. Reproductive potential of major weeds in plantations of fast growing tree species in Mt. Makiling, Laguna, Philippines. Sylvatrop Tech. J. Philipp. Ecosystems & Nat. Res, 1992, 2(2):75-88.
- 1992 J.P Rojo Reproductive potential of major weeds in plantations of fast growing tree species. Sylvatrop Tech. J. Philipp, 1992.
- 1992 E.G. Aragones, Jr., A.B. Ella and J. P. Rojo Resource survey of woody forest vine in five provinces of the Philippine. FPRDI Journal 20, 1992.
- 1991 Rojo, J.P., Ella,A.B. Resource inventory of commercially less-accepted species (CLAS) in recently logged-over forests of the Philippines. FPRDI Journal, 1991, 20(3-4):24-60.
- 1991 Rojo, JP Standing volume of dipterocarps viz-a-viz non-commercial species in recently logged-over forests of the Philippines. 2nd round Table Conference for Dipterocarps, 1991.
- 1990 Ella, AB and M. M. Maruzzo The taxonomy and wood anatomy of three (3) Philippine Anisoptera species (Palosapis group). FPRDI Journal, 1990, 1-4(19):22-41.
- 1990 Ella, A.B. and M.M Maruzzo The taxonomy and wood anatomy of three Philippine Anisoptera species. FPRDI Journal 19, 1990.
- 1988 Seed and seedling morphology and reproductive biology of major weeds in plantations of fast-growing tree species in Mt. Makiling, Laguna, Philippines. MS Thesis, UPLB Library, College, Laguna, 1988.
- Sarcotheca laxa* (Ridley) Knuth. Medicinal and poisonous plants 3. Backhuys Publishers, .

**Name** Jose Perico Esguerra  
**Place of Birth** San Fernando, Pampanga, Philippines  
**Date of Birth** 15 December 1970  
**Gender** Male  
**Civil Status** Single

**Organizational Affiliations**

Associate Professor IV, National Institute of Physics, University of the Philippines Diliman  
Principal Investigator, Statistical Mechanics and Nonlinear Dynamics Subgroup, University of the Philippines Diliman  
Principal Investigator, Theoretical Physics Group, University of the Philippines Diliman  
Principal Investigator, National Institute of Physics, University of the Philippines Diliman  
Member, Technical Committee for Physics and Technical Panel for Science and Mathematics,  
Member, Commission on Higher Education,  
Coordinator, Theoretical Physicist Group, University of the Philippines Diliman  
Coordinator, National Institute of Physics, University of the Philippines Diliman  
Member, International Astronomical Union,  
Trainer, Philippine teams to the Asian and International Physics Olympiad,  
Faculty Adviser, University of the Philippines Astronomical Society, University of the Philippines

**Education**

Ph.D. Physics, University of the Philippines Diliman, Quezon City, Philippines 2001  
M.S. Physics, University of the Philippines Diliman, Quezon City, Philippines 1994  
B.S. Physics, University of the Philippines Diliman, Quezon City, Philippines 1994

**Fields of Specialization**

Mathematical Physics  
Statistical mechanics  
Analytical approximation schemes for fractional dynamics, oscillator systems and quantum systems

**Employment**

Associate Professor IV, National Institute of Physics, UP Diliman, July 2010-Present  
Associate Professor II, National Institute of Physics, UP Diliman, July 2009-June 2010  
Associate Professor I, National Institute of Physics, UP Diliman, July 2008-June 2009  
Assistant Professor 6, National Institute of Physics, UP Diliman, June 2005-June 2008  
Coordinator, Theoretical Physics Group, National Institute of Physics, UP Diliman, January 2002-July 2008

Assistant Professor 3, National Institute of Physics, UP Diliman, November 2001-May 2005

Researcher, WL-Centre for Fluid Dynamics, U.P. Los Banos, College, Laguna, June 1995-June 2000

Assistant Professorial Lecturer, Institute of Mathematical Sciences and Physics, November 1998-October 1999

Instructor 6, Physics Department, De La Salle University, June 1994-May 1995

Lecturer 4, Physics Department, De La Salle University, January 1994-April 1994

Lecturer, National Institute of Physics, UP Diliman, November 1992-March 1993

Lecturer, UP San Fernando, November 1992-March 1993

Coordinator, Theoretical Physics Group, National Institute of Physics, UP Diliman, 1 January 2014-Present

Coordinator, General Physics Committee, National Institute of Physics, UP Diliman, 1 June 2012-31 May 2014

Member, International Astronomical Union, September 2012-

Member, National Institute of Physics, November 2001-Present

Member, NIP Executive Council, January 1 2002-present

Coordinator, General Physics Committee, National Institute of Physics, UP Diliman, 1 June 2012-31 May 2014

Topical Editor, Samahang Pisika ng Pilipinas Physics Congress, 2007-Present

Referee, Samahang Pisika ng Pilipinas Physics Congress, 1997-present

President, Samahang Pisika ng Pilipinas, 01 January 2009-31 December 2010

Member, Technical Committee for Physics, Technical Panel for Science and Mathematics, Commission on Higher Ed, May 2009-31 December 2014

Philippine Representative, Philippine Representative to the General Council of the Asia Pacific Center for Theoretical Physics, 01 January 2008-31 December 2010

Member, National Organizing Committee, International Year of Astronomy Philippine Celebration, January 2009-present

Member, National Organizing Committee, IYA – Philippine Astronomy Olympiad, January 2009-present

Course Coordinator, Physics 10 (Physics and Astronomy for Pedestrians), National Institute of Physics, 1st Semester, 2002-2003

Course Coordinator, Physics 10 (Physics and Astronomy for Pedestrians), National Institute of Physics, 2009-2010

Coordinator, Theoretical Physics Group, January 1, 2002-July 31, 2008

Festival Co-Chair, 2nd Physics Education Festival, 21 May 2009-23 May 2009

Camp Director, Physics Camp of 1st DOST-SEI Science Mathematics and Engineering Camps, 5 May 2009-9 May 2009

First Vice President, Samahang Pisika ng Pilipinas, January 2007-December 2008

Chair, Committee on Physics Education, Samahang Pisika ng Pilipinas, January 2005-present

Second Vice President, Samahang Pisika ng Pilipinas, January 2005-December 2006

Senior Councilor, Samahang Pisika ng Pilipinas, January 2003-December 2004

Project Leader, Development of Learning Objects for Teaching Difficult Concepts in Physics, July 2004-June 2007

Resource Person, Pinoy SciTek Challenge Summer Edition for the DZMM radio program Bago Yan Ah!, April 2006-May 2006

Judge and Member of the Scientific Review Committee, Intel Philippines Science Fair, 2000-Present

Member, National Technical Committee, 1999-2000

Member, Philippine Physics Olympiad, 1999-2000

Member, National Technical Committee, 1997-1998

Member, Philippine Physics Olympiad, 1997-1998

Member, Philippine Physics Olympiad, 1999-2000

Chairman of the Board of Judges, Individual Competition (National Finals), 1998 31 March-1998 2 April

Tutorial Consultant, Kalayaan Residence Hall, UP Diliman, June 1991-May 1993

#### **Association Membership**

Associate Professor IV, National Institute of Physics, UP Diliman

Associate Professor II, National Institute of Physics, UP Diliman

#### **Honors / Awards**

Silver Pillar Awardee, DOST - Science Education Institute Sep. 2012

National Finalist, DOST-Science Education Institute March 2008

1st Gawad LIDER (Leadership Inovations for Development Relevant) to Science Education Awards -Indivi, DOST-Science Education Institute March 2008

Research Fellow, International Center for Scientific Culture June 1997 to June 2000

Third Place, National Rizal Essay Writing Contest December 1993

First Place, Search for the Math Wizard, UP Math Club, UP Diliman February 1991

DOST Undergraduate Scholar, DOST 1988-1989

Undergraduate Scholar, Justice Delfin Jaranilla Foundation June 1984 to March 1989

#### **Papers Presented**

A.K.Laganapan (October 2008). Time evolution of the Spatial Distribution of Systems of Kicked Particles, 26th SPP Physics Congress, University of the Philippines Baguio.

M.P.Solon (October 2008). Brownian Motion in a Time-Dependent magnetic Field, 26th SPP Physics Congress, University of the Philippines Baguio.

M.Solon,J.Dado,A.V.Amarra,J.Manipon and C.Blanca (October 2008). Trajectories of a Damped Double Swinging Atwood's machine, 26th SPP Physics Congress, University of

the Philippines Baguio.

JC Imperio (October 2008). Rational Solutions of a Class of Hydrodynamic Partial differential equations via the Variational iteration Method, 26th SPP Physics Congress, University of the Philippines Baguio.

MP. Catalig (October 2008). Non-propagating Excitations in an Infinite Plane and Three-Dimensional medium, 26th SPP Physics Congress, University of the Philippines Baguio.

A. Muriel (October 1993). Thermodynamics of the One-Dimensional Gravitational Gas, 11th National Physics Congress, UP Marine Science Institute – Bolinao Marine Laboratory, Pangasinan.

(July 1991). Ginzburg Landau Theory and Adiabaticity, 10th National Physics Congress, UP Diliman.

(April 1990). Solution of the Ginzburg-Landau Differential Equation via delta Expansion and Product Integration, 9th National Physics Congress, UP Baguio.

M.M.Nayga (6 - 9 January 2014). Lévy path integral approach to the fractional Schrödinger equation with & perturbed infinite square well, 7th Jagna International Workshop: ANALYSIS OF FRACTIONAL STOCHASTIC PROCESSES: ADVANCES AND APPLICATIONS.

J.Tare (6 - 9 January 2014). Space fractional Schrödinger equation for a quadrupolar triple Dirac & potential, 7th Jagna International Workshop: ANALYSIS OF FRACTIONAL STOCHASTIC PROCESSES: ADVANCES AND APPLICATIONS.

L.G. Posada (30 July- 3 August 2001). Analysis of the Seasonally-driven Multi-specie Lottka-Volterra Equations Using Non-perturbative methods, Fourth International Conference on Biological Physics.

L.G. Posada (28 –30 October 1997). Non-Equilibrium Statistical Mechanics of Confined One-Dimensional Gases, 15th National Physics Congress, University of San Carlos, Talamban, Cebu City.

(28 –30 October 1997). Philippine Participation in the International Physics Olympiad: Lessons, Prospects, and Imperatives for the Philippine Physics Community, 15th National Physics Congress, University of San Carlos, Talamban.

M.Fudolig (27-29 October 2009). Impact of Differential Fertility on Income and Birth Control Policies, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

M. Catalig (27-29 October 2009). A Quantum Particle on the Surface of a Box, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

P.Deceierdo (27-29 October 2009). The Power Series in Time of the Solution to the One-Dimensional Vlasov-Poisson Equation, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

N. Caroy (27-29 October 2000). Thermodynamics of a One-Dimensional Gravitational Gas (1DGG) in a Uniform External Field, 18th National Physics Congress.

L.G. Posada (27 –29 October 1998). Equilibrium Thermodynamics of a Multi-mass Self-Gravitating System: One Dimensional Gravitational Gas, 16th National Physics Congress, Ateneo de Manila University.

(27 –29 October 1998). Perturbative Analysis of High-Virial Multi-Specie Self Gravitating One-Dimensional Systems in the Collisionless Regime, 16th National Physics Congress, Ateneo de Manila University.

F.N. Paraan (26-28 October 2005). Linear Stability and Dynamics of a Periodic Directional Chain of Fractional Relaxors in an Anharmonic Potential, Samahang Pisika ng Pilipinas v.2 (23rd SPP Physics Congress, Central Philippine University Jaro, Iloilo City).

M.Catalig (25-27 October 2010). Evolution of a Spin-1/2 System Subject to Pulsed Magnetic Fields, 28th SPP Physics Congress, MERALCO Management and Leadership Development Center, Antipolo City.

K.Agapito (25-27 October 2010). Numerical simulation for a Duffing oscillator driven by white noise with constant and time-varying noise strengths, 28th SPP Physics Congress, MERALCO Management and Leadership Development Center, Antipolo City.

D.Caneso and Villegas (25-27 October 2010). Approximate Analytical Expressions for the Classical and Quantum Revival time scales of the -Perturbed 1-D Infinite Square Well System, 28th SPP Physics Congress, MERALCO Management and Leadership Development Center, Antipolo City.

M.Alcanzare (25-27 October 2010). Persistent 2D Random Walk with Geometrically Shrinking Steps with Four Directions, 28th SPP Physics Congress, MERALCO Management and Leadership Development Center, Antipolo City.

J.Cosme (25-27 October 2010). Fractionally Damped Coupled Oscillator with Two Identical Masses, 28th SPP Physics Congress, MERALCO Management and Leadership Development Center, Antipolo City.

R. Amor (25-27 October 2006). Relaxation and steady state behavior of an analytically tractable onedimensional model, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

E.S.M. Garcia (25-27 October 2006). Relating the mean first passage times for continuous and discrete time random walks on complex networks, Samahang Pisika ng Pilipinas v.3 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

M.I. Fudolig (25-27 October 2006). Modeling the survival of minority languages, Samahang Pisika ng Pilipinas v.3 (24th SPP Physics Congress, Ateneo de Davao University, Davao City).

D.L. Dy (25-27 October 2006). Evolution of the reduced probability distribution function of a random walker on a lattice with zigzag boundaries, Samahang Pisika ng Pilipinas v.3 (24th SPP Physics Congress, Ateneo de Davao University, Davao City).

M.S. Sereno (25-27 October 2006). On the feasibility of analytical approximations for the bound state energy spectra of one-dimensional quantum systems, Samahang Pisika ng Pilipinas v.3 (24th SPP Physics Congress, Ateneo de Davao University, Davao City).

R.A. Alfonso (25-27 October 2006). Eigenenergies of the generalized Hulthen potential by the asymptotic iteration method, Samahang Pisika ng Pilipinas v.3 (24th SPP Physics Congress, Ateneo de Davao University, Davao City).

(25-27 October 2006). Analytical underpinnings of a hybrid analytic-numeric scheme for the Abe-Thurner generalization of the diffusion equation, Samahang Pisika ng Pilipinas v.3 (24th SPP Physics Congress, Ateneo de Davao University, Davao City generalization of the diffusion equation).

C.G.Sevilla, J. Bartolay (24-26 October 2013). Mechanics of toppling dominoes on a descending inclined plane, 15th Samahang Pisika ng Visayas at Mindanao National Physics Conference and International Workshop, Ateneo de Davao University, Davao City.

(24-26 October 2013). Selected Aspects of Two- and Three-Dimensional Random Walk

and Diffusion (Invited Talk for International Meeting on Complex Systems), 15th Samahang Pisika ng Visayas at Mindanao National Physics Conference and International Workshop, Ateneo de Davao University, Davao City.

DL Dy (24-26 October 2011). First Passage of a diffusing particle with drift in a quarter plane, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

MI Fudolig (24-26 October 2011). Network effects on allocating continually depleted resources, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

MM Alcanzare (24-26 October 2011). Exact probability density function for a 3D random walk with geometrically shrinking steps with shrinking factor  $1/2$ , 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

D Caneso (24-26 October 2011). Approximate Analytical Expressions for the Classical and Quantum Revival Time Scales of the Symmetric 1-D delta–Perturbed Infinite Square Well System, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

MA Catalig (24-26 October 2011). First passage statistics of threshold ratios in a Simple Polya Urn Model, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

NL Caidic (24-26 October 2011). Dynamics of three unidirectionally coupled modified van der Pol oscillators, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

J Cosme (24-26 October 2011). Spatially Periodic Series Solution of a Half-Order Time Fractional Modification of a Linear Dispersive Wave Equation, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

MA Fudolig (24-26 October 2011). Appearance of an expanding superluminal shell, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

DA Lumantas (24-26 October 2011). Piecewise linear emulator of the Lane-Emden equation, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

E. Villacorta (24-26 October 2011). Velocity distributions from relativistic boosts in one dimension, 29th SPP Physics Congress, National Institute of Physics, UP Diliman.

D.L. Dy (24-26 October 2007). Quarter Plane Diffusion, 25th SPP Physics Congress, University of the Philippines Los Banos.

M.M. Alcanzare (24-26 October 2007). Persistent Random Walk with Geometrically Shrinking Steps, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

M.P. Solon (24-26 October 2007). Solution to a Generalized Langevin Equation for a Charged Particle Subject to Exponentially Correlated Noise in an AC Field, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

A.M.K. Laganapan (24-26 October 2007). Relation between a System Described by a Simplified Muriel Kinetic Equation and a Kicked System with a Mittag-Leffler Waiting Time Distribution Between Kicks, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

J.C. Imperio (24-26 October 2007). Variational Iteration Approach to Evolution Problems with Positivity Constraints: Application to Diffusion Equation, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

E.M. Garcia (24-26 October 2007). Mean First-Passage Time for Random Walks on Circulant Networks, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

R.A. Alfonso (24-26 October 2007). Eigenenergies of the Manning-Rosen Potential via the Asymptotic Iteration Method, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

M.I.D. Fudolig (24-26 October 2007). A Model of Code-Switching and Borrowing in Bilingual Communities, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

B.H. Rara (24-26 October 2007). Fractional Langevin Equation for Brownian Particle in a Sinusoidally Varying Electric Field, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

J.P. Pampolina, M.R.C. Solis, A.A. Morales, Jr., and D.M. Yanga (24-26 October 2001). Spin Density Waves in Cuprate Superconductors, 19th SPP Philippine Physics Congress, Saint Mary's University, Bayombong, Nueva Vizcaya.

M.R.C. Solis, J.P. Pampolina, A.A. Morales, Jr., and D.M. Yanga (24-26 October 2001). Magnetic Susceptibility of High Temperature Superconductors Using the Matsubara Formalism, 19th SPP Philippine Physics Congress, Saint Mary's University, Bayombong, Nueva Vizcaya.

K. Gargar (24-26 October 2001). Numerical Investigation of Non-Homologous Collapse of the One-Dimensional Gravitational Gas, 19th SPP Philippine Physics Congress, Saint Mary's University, Bayombong, Nueva Vizcaya.

M.R.C. Solis (24-26 October 2001). Special Relativistic Effects in the Equilibrium Statistical Mechanics of the One- Dimensional Gravitational Gas and the Takahashi Gas, 19th SPP Philippine Physics Congress, Saint Mary's University, Bayombong, Nueva Vizcaya.

J. Cosme, FN Paraan (23-25 October 2013). Thomas-Fermi Approach on the Particle Density of a Tonks-Girardeau Gas in Harmonic Confinement with Multiple Delta Perturbations, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

J.Tare (23-25 October 2013). Space-fractional Schrodinger equation for a quadrupolar triple Dirac-delta potential, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

MA Fudolig (23-25 October 2013). Elephant Walk with Single-Step Memory Lapse, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

D Caneso, KH Villegas (23-25 October 2013). Evolution of the Magnetization Probability of a Frustrated Antiferromagnet in a Hexagonal-triangular lattice in Discrete Glauber Dynamics, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

N. Lamsen (23-25 October 2013). Rapidity Distribution of a Tracer Particle in 1D Maxwell-Juttner Gas, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

J Vance (23-25 October 2013). Brownian motion with viscous and quadratic friction, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

MM Nayga (23-25 October 2013). Levy Path-Integral Approach to the fractional Schrodinger equation with deltaperturbed infinite square well, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

M Aydinan (23-25 October 2013). Two-dimensional persistent random walk with linearly increasing step size, 31st SPP Physics Congress, University of San Carlos, Talamban

Campus, Cebu City.

L. Lorenzo (23-25 October 2013). Pulse-propagation in an exponentially graded spring-mass system, 31st SPP Physics Congress, University of San Carlos, Talamban Campus, Cebu City.

M.R.C. Solis (23-25 October 2002). On the Range of Validity of Hilhorst Type Integral Formulae, in the 20th SPP Philippine Physics Congress, Ateneo de Naga University, Naga City.

S. Delica, J. Joson and M. Arciaga (23-25 October 2002). Gender differences in the FCI pre-test and posttest performance of introductory physics students in the University of the Philippines, 20th SPP Philippine Physics Congress, Ateneo de Naga University, Naga City.

M.Solis (23 to 27 October 2000). Non Perturbative Analysis of a Class of Chaotic Circuits, Third Asian Mathematical Conference.

E.S.G. Agra (22-26 October 2004). Dynamics of Coupled Fractional Oscillators in a Ring, 22nd Samahang Pisika ng Pilipinas Physics Congress, Tagbilaran City, Bohol.

R. Coronel (22-26 October 2004). Vibrational Resonance in a Time-Fractional System, 22nd Samahang Pisika ng Pilipinas Physics Congress, Tagbilaran City, Bohol.

R.R.D.J. Sol (22-25 October 2003). A Vlasov-Poisson Perturbation Approach to Tidal Interactions of Stellar Systems, 21st SPP Physics Congress, University of San Carlos Cebu City.

B.H. Rara (22-25 October 2003). Fractional Dynamics of One-Dimensional linear Chain, 21st SPP Physics Congress, University of San Carlos Cebu City.

R. Coronel (22-25 October 2003). Periodically Driven Intermediate Fractional Relaxor-Oscillator with Piecewise Linear Restoring Force, 21st SPP Physics Congress, University of San Carlos Cebu City.

R.M. Sese (22-25 October 2003). Approximate Analytic Solutions of the Lane-Emden Equation for Positive Integer Values of Polytropic Index, 21st SPP Physics Congress, University of San Carlos Cebu City.

G.M. Sardane and A. Pelicano (22-25 October 2003). Density Profiles for a Simple Model of Spherical Galaxies and Clusters of Galaxies, 21st SPP Physics Congress, University of San Carlos Cebu City.

K.H. Villegas and D. Yanga (22-24 October 2012). Finite-temperature Green's Function Approach to Kondo Impurity Scattering, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmarinas, Cavite.

M.A.Fudolig (22-24 October 2012). Apparent Superluminal Motion Of A Revolving Subluminal Body, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmarinas, Cavite.

D.Yanga, KH Villegas and M. Alcanzare (22-24 October 2012). Mobility of Charged Particles in Polar Crystals Based on the Spin Polaron Theory, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmarinas, Cavite.

J. Cosme (22-24 October 2012). Ground State Analysis of Tonks-Girardeau Gas in a Harmonic and Gaussian Double-Well Potential by Perturbation Method, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmarinas, Cavite.

M.I.Fudolig (22-24 October 2012). Tolerance and opinion dynamics, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmarinas, Cavite.

D.L.Dy (22-24 October 2012). Mass Spectrum of Bosonic Strings with Sink, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmaringas, Cavite.

M.Alcanzare, D.Yanga (22-24 October 2012). Spin-polaron Theory in Kubo Formulation, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmaringas, Cavite.

K.Agapito (22-24 October 2012). Mean Solution of the Noisy Duffing Equation, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmaringas, Cavite.

EJ Eisma, M. Alcanzare (22-24 October 2012). Position Probability and Moment Generating Function of Directionally Biased Persistent Random Walk with Pauses, 30th SPP Physics Congress, De La Salle Health Sciences Institute, Dasmaringas, Cavite.

A. Muriel, S. Novopashin and E. Gutierrez (22-24 October 1999). A Molecular Theory of the Onset of Turbulence, the 17th National Physics Congress, Leyte Normal University.

(22-24 October 1999). Derivation Using Projection Techniques of a Hierarchy of Kinetic Equations for Relativistic Gases, 17th National Physics Congress, Leyte Normal University.

(22-24 October 1999). Thoughts on Philippine Participation in the International Physics Olympiad, 17th National Physics Congress, Leyte Normal University.

G.M. Sardane (22- 26 October 2004). New Continuum Approximations to Random Walks with Fixed and Shrinking Steps, 22nd Samahang Pisika ng Pilipinas Physics Congress, Tagbilaran City, Bohol.

(21 –23 October 1995). Derivation of Mass and Momentum Transport Equations for Mixtures Using Perturbation Theory and Projection Techniques, 13th National Physics Congress, Mindanao State University – Iligan Institute of Technology.

R.Amor, B. Rara and F.N. Paraan (2006). Equilibrium Statistical Mechanics of Charged Disks in External Electric and Gravitational Fields, Samahang Pisika ng Pilipinas v.2 (23rd SPP Physics Congress).

D.L. Dy (2005). Quantum Systems with Position-Dependent Effective Mass and Equispaced Energy Levels: New Exact Results and Test of a Perturbation Scheme, Samahang Pisika ng Pilipinas v.2 (23rd SPP Physics Congress).

A.S. Alarcon (2005). Redshift Distributions of Quasars with Highly Blue and Highly Red Spectra Obtained from the Sloan Digital Sky Survey Database, Samahang Pisika ng Pilipinas v.2 (23rd SPP Physics Congress).

(1996). Simulation of Lahar Flow on the Pasig Potrero River, 11 November 1996 Technical Consultation Meeting of the Mount Pinatubo Commission.

(1989). Generalized Ginzburg Landau Theory, in Progress of Theoretical and Experimental Physics, 1989 National Physics Congress (Kalikasan Press, 1990).

(1988). Discrete Time Quantum Mechanics, Theoretical and Experimental Physics, 1988 National Physics Congress (Kalikasan Press, 1989).

(19-20 November 1999). Modeling the Thermodynamics of a One-Dimensional Gravitational Gas Using Maple, Model '99: Workshop and Conference on Modeling, Simulation, and Scientific Computing, Ateneo de Manila University.

E. Gonzales II (15 –16 October 1994). Kinetic Equations for Binary Mixtures Using Projection Techniques, 12th National Physics Congress, De La Salle University, Manila.

(10-12 December 1996). Integral Formulation of Transport Phenomena in the Presence of External Fields, 14th National Physics Congress, ISMED, UP Diliman.

L.G. Posada (10-12 December 1996). Time Evolution of an Initial Density Discontinuity in a Knudsen Gas, 14th National Physics Congress, ISMED, UP Diliman.

R.C. Amor (). Evolution of One-Dimensional Gases in Expanding Containers, Samahang Pisika ng Pilipinas (25th SPP Physics Congress, University of the Philippines Los Banos.

## Publications

- 2014 K.H. Villegas and D.M. Yanga Tunneling of Holes in Spin Polaron Theory. *J Supercond Nov Magn*, 2014.
- 2014 J.Tare Bound States for Multiple Dirac-delta wells in space-fractional quantum mechanics. *J. Mathematical Physics*, 2014.
- 2014 J.D. Tare Transmission through locally periodic potentials in space-fractional quantum mechanics. *Physica A*, 2014.
- 2014 M.I. Fudolig Analytic treatment of consensus achievement in the single-type zealotry voter model. *Physica A*, 2014.
- 2013 D.L. Dy First-passage characteristics of biased diffusion in a planar wedge. *PHYSICAL REVIEW E*, 2013.
- 2012 L.O-S. Co Ting Keh, A.M.A. Chupungco Nonlinear Time Series Analysis of Electroencephalogram Tracings of Children with Autism. *International J. Bifurcation and Chaos*, 2012.
- 2010 Amor, R.C. Evolution of ideal gas mixtures confined in an insulated container by two identical pistons. *American Journal of Physics*, 2010, 78:916-919.
- 2010 R.C. Amor Evolution of ideal gas mixtures confined in an insulated container by two identical pistons. *American Journal Physics*, 2010.
- 2009 Solon, M.P., Muriel, A. Turbulence in a gas laser. *Physica A*, 2009, 388:4361-4363.
- 2009 M.P.Solon and A.Muriel Turbulence in a Gas Laser. *Physica A*, 2009.
- 2008 Paraan, F.N.C., Solon, M.P. Brownian motion of a charged particle driven internally by correlated noise. *Physics Review E*, 2008, 77:022101.
- 2008 Solon, M.P. Periods of relativistic oscillators with even polynomial potentials. *Phys. Lett. A*, 2008, 372:6608-6612.
- 2008 Dy, D.L.L. First-passage-time distribution for diffusion through a planar wedge. *Physics Review E*, 2008, 78:062101.
- 2008 D.L.Dy First passage-time distribution for diffusion through a planar wedge. *Phys. Rev. E*, 2008.
- 2008 M.P.Solon Periods of relativistic oscillators with even polynomial potentials. *Physics Letters A*, 2008.
- 2008 F.N.C. Paraan and M.P. Solon Brownian motion of a charged particle driven internally by correlated noise. *Phys. Rev. E*, 2008.
- 2008 S Delica, J Joson and M Arciaga Gender differences in the FCI pretest and posttest performance of introductory physics students in the University of the Philippines. *Pisika v.1*, 2008.
- 2008 M.I. Fudolig A Model of Code-switching and Borrowing in Bilingual Communities. *Pisika*

- v.1, 2008.
- 2008 Mikhail Solon Solution to a Generalized Langevin Equation for a Charged Particle subject to Exponentially Correlated Noise in an AC Field. *Pisika* v.1, 2008.
- 2008 Problems from the 2002 and 2006 Physics Olympiad preparation programs and the solution problem 1. *Pisika* v.1, 2008.
- 2008 Newton's cradle and the solution to problem 2. *Pisika* v.1, 2008.
- 2008 Physics problems and solution 3:Preserving a triangular table. *Pisika* v.2, 2008.
- 2006 Paraan, F.N.C. Exact moments in a continuous time random walk with complete memory of its history. *Physics Review E*, 2006, 74:032101.
- 2006 F.N.C. Paraan Exact moments in a continuous time random walk with complete memory of its history. *Phys. Rev. E*, 2006.
- 2003 K. Gargar Numerical Investigation of Non-Homologous Collapse of the One-Dimensional Gravitational Gas. *Science Diliman*, 2003.
- 2001 N.Caroy Thermodynamics of a One-Dimensional Gravitational Gas (1DGG) in a Uniform External Field. *Science Diliman*, 2001.
- 1999 A. Muriel, S. Novopashin and E. Gutierrez A Molecular Theory of the Onset of Turbulence. *Science Diliman*, 1999.
- 1998 Muriel, A., Jirkovsky, L., Dresden, M. Instabilities in classical and quantum fluids. *Physica D*, 1998, 119:381-397.
- 1998 A.Muriel, L. Jirkovsky and M. Dresden Instabilities in Classical and Quantum Fluids. *Physica D*, 1998.
- 1996 Muriel, A. Exact time evolution of the density of a classical many-body system: The open one-dimensional gravitational gas. *Physics Review E*, 1996, 54:1433-1441.
- 1996 A. Muriel Exact Time-Evolution of the Density of a Classical Many Body System: The One- Dimensional Gravitational Gas. *Physics Review E*, 1996.
- 1994 Muriel, A., Feix, M. Thermodynamics of the one-dimensional gravitational gas. *Astronomy and Astrophysics*, 1994, 287:1021-1025.
- 1994 A. Muriel and M. Feix Thermodynamics of the One-Dimensional Gravitational Gas. *Astron. Astrophys.*, 1994.

**Name** Eric Alvarez Galapon

**Place of Birth** November 6, 1971

**Gender** Male

**Civil Status** Married

**Home Address** 1085 B JP Rizal, Guadalupe Viejo Makati City

**Organizational Affiliations**

Associate Professor of Physics, National Institute of Physics, UPD, Quezon City

**Education**

Ph.D. in Physics, University of the Philippines, Diliman, Quezon City 2001

M.S. Physics, University of the Philippines, Diliman, Quezon City 1996

B.S. Physics, University of the Philippines, Diliman, Quezon City 1992

**Fields of Specialization**

Foundations and applications of quantum mechanics

Computational physics

Physics

**Employment**

Assistant/Associate Professor of Physics, National Institute of Physics, UPD, 2001-present

Instructor of Physics, NIP-UPDiliman, 1993-2001

**Association Membership**

Member, Samahang Pisika ng Pilipinas

Member (invited), South East Asia Theoretical Physics Association

Member, Outstanding Young Scientist Inc

Member, National Research Council of the Philippines

**Honors / Awards**

Scientist I, University of the Philippines 2009-2001

Outstanding Young Scientist, NAST-DOST 2010

National Research Council Achievement Award in Physics for 2013, National Research Council of the Philippines 2013

UP-Centennial Professorial Chair Awardee, University of the Philippines 2008 - 2014

Scientist 1, University of the Philippines Jan. 2009 - 2014

**Trainings**

International Colloquium in Time and Matter, Venice, Italy 2002 Ag 11-24

International Conference on Quantum Optics, Raubichi, Belarus 2000 My 28-31

**Researches**

**Completed**

Characterizing multiple solutions to the time-energy canonical commutation relation via internal symmetries

Diffusion type integrals

Exponentially small tunneling times

Quantum violations of the weak equivalence principle exponentially small tunneling times

Quantum crossing states

Deformation quantization in the quantum time of arrival problem

### Papers Presented

Sombillo, D., Galapon, E.A. (2009). Improved numerical approximation of the time kernel factor using hybrid schemes, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

Nable, J., Galapon, E.A. (2009). On Fedosov star-products of kernels of time operators, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

Domingo, H., Galapon, E.A. (2009). General operator bases for Bender-Dunne space, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

Caballar, R., Galapon, E.A. (2008). Classifying solutions to the time-energy canonical commutation relation via time reversal symmetry, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Villanueva, A., Galapon, E.A. (2008). Equivalence of the Liouville time of arrival operator and the superquantized time of arrival operator for the harmonic and quartic oscillators, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Villanueva, A., Galapon, E.A. (2008). The second minimal Bender-Dunne solution for the harmonic oscillator, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Sombillo, D., Galapon, E.A. (2008). Numerical approximation to the time kernel equation, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Balite, P., Caballar, R., Galapon, E.A. (2008). Application of a method for solving the eigenfunctions and eigenvalues of a class of integral operators, Samahang Pisika ng Pilipinas 2008 (Baguio).

Bunao, J., Galapon, E.A. (2008). Quantum corrections to the classical time of arrival for certain potentials, Samahang Pisika ng Pilipinas 2008 (Baguio).

Caballar, R., Galapon, E.A. (2007 O 24-26). Quantum Time Transition States, Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos.

Villanueva, A.D., Galapon, E.A. (2007 O 24-26). Momentum Time of Arrival, Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), UPLB.

Ramirez, K., Galapon, E.A. (2007 O 24-26). Numerical Quantum Evolution of Free Particle with Non-Periodic Initial Wave Function Reconstructed by Gegenbauer Series, Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), UPLB.

Sombillo, D., Ilano, N., Galapon, E.A. (). Asymptotic solution of an anisotropic scattering potential, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

### Publications

- 2014 J. Bunao The Bender-Dunne basis operators as Hilbert space operators. J. Math. Phys, 2014.
- 2013 K.L. Martinez Exactification of the Poincare asymptotic expansion of the Hankel integral: Expectacularly accurate asymptotic expansions and non-asymptotic scales. Proc. Roy. Lond. A, 2013.
- 2013 R.S. Vitanco An N-qubit Master Equation and Two-qubit Entanglement Dynamics in Spin-Chain and Bosonic Environments. Samahang Pisika ng Pilipinas, 2013.
- 2013 D. Sombillo Expectation value of CTOA-operator for double barrier potential. Samahang Pisika ng Pilipinas, 2013.
- 2013 J. Bunao A dense domain for  $T_{-3,-3}$  in  $L_2(-\infty, \infty)$ . Samahang Pisika ng Pilipinas, 2013.
- 2013 M. Flores Bipartite entanglement dynamics of 2 and 3 qubit systems in a single mode reservoir with two excitations. Samahang Pisika ng Pilipinas, 2013.
- 2013 P. Blancas Quantum cloaking of a hard sphere by introducing it a potential coating. Samahang Pisika ng Pilipinas, 2013.
- 2013 V. Villegas Entanglement generation and enhancement in a two qubit system by local perturbation. Samahang Pisika ng Pilipinas, 2013.
- 2012 Only above barrier energy components contribute to barrier traversal time. Phys. Rev. Lett, 2012.
- 2012 D.L.B. Sombillo Quantum time of arrival Goursat problem. J. Math. Phys, 2012.
- 2012 K.M. Martinez Distributional treatment to integrals and applications. Samahang Pisika ng Pilipinas, 2012.
- 2012 P.J. Blancas Quantum scattering of exactly solvable anisotropic potential in paraboloidal coordinate system. Samahang Pisika ng Pilipinas, 2012.
- 2012 J. Bunao The time of arrival operator for the free particle case in the Hilbert space  $L$  from negative to positive infinity. Samahang Pisika ng Pilipinas, 2012.
- 2012 M. Flores Exact time evolution of a 4-qubit system in a common reservoir and its influence in bipartite entanglement. Samahang Pisika ng Pilipinas, 2012.
- 2012 E. Paglinawan Apparent quantum observable conjugacy through weak joint measurements. Samahang Pisika ng Pilipinas, 2012.
- 2012 J. Gonzales and A. Villanueva Wavefunction structure and time of arrival. Samahang Pisika ng Pilipinas, 2012.
- 2012 P.J. Blancas Quantum scattering of the wave-packet confined in anisotropic paraboloidal shell potential. Samahang Pisika ng Pilipinas, 2012.
- 2011 Joint position and kinetic energy measurements: revisiting Aharonov-Popescu-Rolich-Viadman negative kinetic energy. Samahang Pisika ng Pilipinas, 2011.
- 2011 R. Vitanco. Are there quantum measurements that do not alter the state of the system?. Samahang Pisika ng Pilipinas, 2011.
- 2011 R.C. Caballar Solutions to the time-dependent Schrodinger equation for confined systems with non-local potentials. Samahang Pisika ng Pilipinas, 2011.
- 2011 A. Villanueva Quantum corrections to the classical time of arrival for linear

- potentials. Samahang Pisika ng Pilipinas, 2011.
- 2011 H. Domingo Quantum corrections from simple symmetric ordering. Samahang Pisika ng Pilipinas, 2011.
- 2011 J. Gonzalez and A. Villanueva The Baute quantum time of arrival distribution for the harmonic oscillator potential. Samahang Pisika ng Pilipinas, 2011.
- 2010 A.D. Villanueva Generalized crossing states in the interacting case: The uniform gravitational fields. Phys. Rev. A, 2010.
- 2010 R. Caballar, L. Ocampo Characterizing multiple solutions to the timeenergy canonical commutation relation via internal symmetries. Phys. Rev. A, 2010.
- 2010 Time in quantum mechanics. Samahang Pisika ng Pilipinas, 2010.
- 2010 J. Bunao Solution of the TKE for an arbitrary everywhere analytic potential. Samahang Pisika ng Pilipinas, 2010.
- 2010 H.B. Domingo Algebra of Born-Jordan ordered bases. Samahang Pisika ng Pilipinas, 2010.
- 2010 D. Sombillo Application of Gaussian quadrature on the numerical solution of the time kernel equation. Samahang Pisika ng Pilipinas, 2010.
- 2010 P. Blancas High energy reflection and transmission amplitudes in momentum space. Samahang Pisika ng Pilipinas, 2010.
- 2010 H.B. Domingo Quantum corrections to classical expectation values. Samahang Pisika ng Pilipinas, 2010.
- 2010 J. Bunao The time of arrival of a Gaussian wavepacket for the general analytic potential case. Samahang Pisika ng Pilipinas, 2010.
- 2010 A. Villanueva The Baute quantum time of arrival distribution in a uniform gravitational field and its classical limit. Samahang Pisika ng Pilipinas, 2010.
- 2010 R. Caballar Spectra of Hamiltonians with non-local potentials. Samahang Pisika ng Pilipinas, 2010.
- 2010 J. Nable On representations of the canonical commutation relation by time and energy operators. Samahang Pisika ng Pilipinas, 2010.
- 2010 D. Sombillo Exact quantum time of arrival correction terms for quartic potential. Samahang Pisika ng Pilipinas, 2010.
- 2010 R. Pamillo Solution to the Schrodinger equation for a pair of Dirac delta potentials. Samahang Pisika ng Pilipinas, 2010.
- 2009 Post Pauli's Theorem Emerging Perspective on Time in Quantum Mechanics. Time in Quantum Mechanics II, J.G. Muga, A. Rushhaupt, A. del Campo, eds., Springer-Verlag (Germany), 2009.
- 2009 Bunao, J. The role of conjugacy in the dynamics of the CTOA operator. Samahang Pisika ng Pilipinas 2009 Proceedings, 2009.
- 2009 Pamillo, R. More delta convergent sequences that vanish at the support of the limit Dirac delta. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay), 2009.
- 2009 Quantum time of arrival expectation values for freely falling quantum particle as indicators of quantum violation of the weak equivalence principle. Samahang Pisika ng Pilipinas

- 2009 Proceedings, 2009.
- 2009 Martinez, J. Effect of a linear potential on the temporal diffraction of particle in a box. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay), 2009.
- 2009 Villanueva, A. Formal perturbative solution for the generalized crossing state. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay), 2009.
- 2009 Quantum wave packet size effects on neutron time of flight spectroscopy. Rapid Communications: Phys. Rev. A 80, 030102, 2009.
- 2009 Caballar, R. Characterizing multiple solutions of the timeenergy-canonical commutation relation via quantum dynamics. Phys. Let. A, 2009.
- 2009 Delta Convergent Sequences that Vanish at the Support of the Limit Dirac Delta Function. Journal of Physics A.: Math Theory, 2009, 42:175201.
- 2009 Theory of Quantum Arrival and Spatial Wave Function Collapse on the Appearance of Particle. Proc. Roy. Lond. A, 2009, 465:71.
- 2009 J. Bunao The role of conjugacy in the dynamics of the CTOA operator. Samahang Pisika ng Pilipinas, 2009.
- 2008 Comment on Almost-periodic time observables for bound quantum systems. J. Phys. A: Math. Theor., 2008, 42:018001.
- 2008 Villanueva, A. Quantum First Time of Arrival Operators. J. Phys. A: Math. Theor., 2008, 41:455302.
- 2008 Vitacol, R. Application of Clenshaw-Curtis method in confined time of arrival operator eigenvalue-problem. International Journal of Modern Physics C., 2008, 19:821.
- 2007 Caballar, R. Eigenvalues and Eigenfunctions of a Class of Integral Operators. Proceeding of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos, 2007 O 24-26.
- 2007 Villanueva, A.D. Obstruction to Quantization and Liouvillian Quantization. Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos, 2007 O 24-26.
- 2007 Dy, D.L. Application of First-Order Perturbation Theory to the Confined Time of Arrival Problem. Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos, 2007 O 24-26.
- 2006 What could have been missing while Pauli's theorem was enforced?. Time and Matter, I. Bigi and M. Faesler, eds., World Scientific, 2006:133.
- 2006 Theory of quantum first time of arrival via spatial confinement I: Confined time of arrival operators for continuous potentials. Int. Jour. Mod. Phys. A., 2006, 21:6351.
- 2006 Vitacol, R.S. Superalgebraic computation of confined time of arrival operator eigenvalues. Samahang Pisika ng Pilipinas National Congress 2006 Proceedings, 2006.
- 2006 Born series solution of the time kernel equation and quantum mechanical derivation of the anharmonic oscillator classical time of arrival. Samahang Pisika ng Pilipinas National Congress 2006 Proceedings, 2006.
- 2006 Ocampo, L.R. Symmetry broken confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress Proceedings, 2006.
- 2006 Caballar, R.C. Long time dynamical behavior of the confined quantum time of arrival

- eigenfunctions. Samahang Pisika ng Pilipinas National Congress 2006 Proceedings, 2006.
- 2006 Ramirez, K.G. Numerical quantum evolution of confined particle with non periodic boundary conditions through split operator method reconstructed by Gegenbauer series. Philippine Physical Society National Congress 2006 Proceedings, 2006.
- 2006 Villanueva, A., Domingo, H.B. Born series solution of the time kernel equation and quantum mechanical derivation of the anharmonic oscillator classical time of arrival. Samahang Pisika ng Pilipinas National Congress 2006 proceedings, 2006.
- 2006 Ocampo, L.R. Symmetry broken confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress Proceedings, 2006.
- 2006 Caballar, R.C. Long time dynamical behavior of the confined quantum time of arrival eigen functions. Samahang Pisika ng Pilipinas National Congress Proceedings, 2006.
- 2006 Ramirez, K.G. Numerical quantum evolution of confined particle with non periodic boundary conditions through split operator method reconstructed by Gegenbauer series. Philippine Physical Society National Congress Proceedings, 2006.
- 2005 Caballar, R. Bahague, R. Confined time of arrivals for vanishing potential. Physics Review A., 2005.
- 2005 Delgado, F., Muga, J.G., Egusquiza, I. Transition from discrete to continuous time of arrival distribution for a quantum particle. Physics Review A, 2005, 74:042107.
- 2004 Caballar, R.F., Bahague, R.T. Confined Quantum Time of Arrivals. Phys. Rev. Letters, 2004, 93:180406.
- 2004 Shouldn't there be an antithesis to quantization. Journal of Mathematical Physics, 2004, 45:3180-3215.
- 2003 Caballar, R.C.F. On the eigenvalue problem for periodic confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Domingo, H.B. Modified time kernel equation. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Pilapil, H.B., Caballar, R.C.F., Perez, R.E. Generalized Laplace method. Samahang Pisika ng Pilipinas 2003 Proceedings, 2003.
- 2003 Caballar, R.C.F. On the eigenvalue problem for periodic confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Domingo, H.B. Modified time kernel equation. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Pilapil, H.B., Caballar, R.C.F., Perez, R.A. Generalized Laplace Method. Samahang Pisika ng Pilipinas, 2003.
- 2002 Self-adjoint Time Operator is the Rule for Discrete Semibounded Hamiltonians. Proc. R Soc. Load A, 2002, 487:2671-2689.
- 2002 Pauli's Theorem and Quantum Canonical Pairs: The Consistency Of a Bounded, Self-Adjoint Time Operator Canonically Conjugate to a Hamiltonian with Non-empty Point Spectrum. Proc. R. Soc. Load A, 2002, 458:451-472.
- 2002 Existence and uniqueness theorem for the time kernel equations. Samahang Pisika ng Pilipinas National Congress 2002 Proceeding, 2002.

- 2002 What could have we been missing while Pauli's Theorem was in force?. International Colloquium in Time and Matter, Venice, Italy, 2002.
- 2001 Quantum-Classical Correspondence of Dynamical Observables, Quantization and the Time of Arrival Correspondence Problem. Opt. and Specs., 2001, 91:399.
- 2001 Bahague Jr., R.T. Static behaviors of confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress 2001 Proceedings, 2001.
- 2001 Domingo, H.B. The time of arrival quantum-classical correspondence problem for arbitrary arrival points. Samahang Pisika ng Pilipinas National Congress 2001 Proceedings, 2001.
- 2001 Perez, R.E., Bahague, R.T. Confined time of arrival operator for the (0,1) segment. Samahang Pisika ng Pilipinas National Congress 2001 Proceedings, 2001.
- 2000 The time of arrival quantum classical correspondence problem. Samahang Pisika ng Pilipinas National Congress 2000 Proceedings, 2000.
- 2000 Quantum-Classical Correspondence of Dynamical Observables. International Conference on Quantum Optics, 2000.
- 1999 Pauli's seven decade myth: the consistency of bounded time operator conjugate to a Hamiltonian with point spectrum. Samahang Pisika ng Pilipinas National Congress 1999 Proceedings, 1999.
- 1999 Quantum arrival times for confined autonomous Hamiltonian systems. Philippine Physical Society National Congress 1999 Proceedings, 1999.
- 1998 Overio, A. Iterative construction of quasi-time operators. Samahang Pisika ng Pilipinas National Congress 1998 Proceedings, 1998.
- 1998 Free motion quantum theory of time in a box. Philippine Physical Society National Congress 1998 Proceedings, 1998.
- 1997 Compounded infinitesimal Hamiltonian perturbations: a model of Hamiltonian transitions by a continuous perturbation on a free Hamiltonian. Samahang Pisika ng Pilipinas National Congress 1997 Proceedings, 1997.
- 1997 Inverse commutation approach to classical and quantum time functions. Philippine Physical Society-National Congress Proceedings, 1997.
- Caballar, R. Characteristic time operators for systems with degenerate energy spectrum. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay)2009, .

**Name** Wilson O. Garcia  
**Place of Birth** Manila, Philippines  
**Date of Birth** September 21, 1961  
**Gender** Male  
**Civil Status** Married

**Organizational Affiliations**

Associate Professor, National Institute of Physics, University of the Philippines, Diliman, Quezon City

**Education**

Doctor of Philosophy, National Institute of Physics, Quezon City, Philippines 2002

Master of Science, National Institute of Physics, Quezon City, Philippines 1993

Bachelor of Science, University of the Philippines, Quezon City, Philippines 1983

**Fields of Specialization**

Physics

Spectroscopy

Lasers

Optics

**Employment**

Deputy Director for Facilities, National Institute of Physics,

Program Coordinator, National Institute of Physics,

Instructor, National Institute of Physics, 1983 Je 01-1996 My 31

University Researcher, National Institute of Physics, 1996 Je 01-2003 My 31

Assistant Professor, National Institute of Physics, 2003 Je 01-2005 Je 30

Assistant Professor, National Institute of Physics, 2005 Jl 01-present

Member, EIDR Evaluation and Monitoring Committee Office of the Vice President for Academic Affairs, 01 July 2013-present

Vice Chair, Bids and Awards Committee Office of the Vice President for Administration, 03 March 2011-31 May 2013

Program Development Associate, Office of the Vice President for Academic Affairs, 01 Oct. 2011-31 Dec 2011

Chair, Technical Working Group Video Surveillance and Vehicacle Monitoring System, May 2012-Oct. 2012

Chair, Project Management Committee Integrated Access Management System, Nov. 2012-present

Deputy Director for Research and Extension, National Institute of Physics – U.P. Diliman Campus, 01 June 2012-present

Deputy Director for Facilities and Resources, National Institute of Physics – U.P. Diliman Campus, 01 June 2006-30 June 2011

Chair, NRCP Physics Division, 01 April 2011-Present

Chair, Publication Committee, 01 April 2011-31 March 2014

Assistant Corporate Secretary, NRCP Governing Board, 01 April 2012-31 March 2013

Assistant Treasurer, NRCP Governing Board, 01 April 2013-31 March 2014

Member, Special Technical Committee on Natural Sciences – Philippines Scientific Career Council, 01 June 2012-Present

1st Vice-President, Physics Society of the Philippines, 01 Jan. 2012-Present

### **Association Membership**

Founding Member and Alumni, Physics Association, University of the Philippines, Diliman

Associate Member, National Research Council of the Philippines (NRCP)

Regular member, NRCP

Regular Member, Samahang Pisika ng Pilipinas

Founding and Regular member, Philippine Physics Foundation

### **Honors / Awards**

2nd Prize Outstanding R&D Award, PCASTRD 1999

Recognition, Outstanding Achievement in Scientific Research, UP Diliman, Quezon City 2000 Mr 02

Finalist, Outstanding R&D Award in Advanced Science, PCASTRD 2001

Gawad Chanselor, UP Diliman, Quezon, City 2002

Awards for Excellence, The Manila Times 2004

1st Philippine Holding Group Professorial Chair Award, UP Diliman, Quezon City 2004

Advanced Technology Award, UP Diliman, Quezon City 2005

Gawad Chanselor, UP Diliman, Quezon City 2005

2nd Prize Outstanding R&D Award in Advanced Technology, PCASTRD 2005

2nd Prize, Outstanding R&D Award, Advanced Science and Technology Philippine Council for Advanced Science Technology Research and Deve 1999

Achievement Award, The National Research Council of the Philippines, Philippines 2007

First Prize – Scientific Poster Exhibits Detection of Philippine Coins By Laser Induced Breakdown, General Membership Assembly, National Research Council of the Philippines 2009

Winner – Best Scientific Poster Influence of Annealing and Repeated Sintering on the Morphology of, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay 28 to 30 Oct. 2009

First Prize Winner, 77th General Membership Assembly, National Research Council of the Philippines 2010

Third Prize Winner Scientific Poster Competition A Simple Protocol for Characterizing

Laser Crystals, 77th General Membership Assembly, National Research Council of the Philippines 2010

Third Prize Winner, 31st Annual PAASE Meeting and Symposium, National Institute of Physics 15 - 18 June 2011

Third Prize Winner, 31st Annual PAASE Meeting and Symposium, National Institute of Physics, U.P.- Diliman Campus, Quezo 15 - 18 June 2011

Best Paper, Time-Resolved Optical Emission Spectroscopy and IR ND-YAG PLD of Bi-Sr-Ca-Cu-O 22nd ASEMEP National 08 June 2012

First Philippine Holding Group Professorial Chair Award, University of the Philippines at Diliman, Quezon City September 2004

UPJP Faculty Grant Award, University of the Philippines at Diliman, Quezon City 01 July 2005 to 30 June 2006

UP System (DJ) Faculty Grant Award, University of the Philippines at Diliman, Quezon City 01 July 2006 to 30 June 2007

UP System Chair, University of the Philippines at Diliman, Quezon City 01 July 2007 to 30 June 2008

III Professorial Chair, University of the Philippines at Diliman, Quezon City 01 January 2008 to 30 June 2008

UP Diliman Centennial Faculty Grant, University of the Philippines at Diliman, Quezon City 01 July 2008 to 30 June 2009

UP Diliman Centennial Professorial Chair, University of the Philippines at Diliman, Quezon City 01 July 2009 to 30 June 2010

UP Diliman Centennial Faculty Grant, University of the Philippines at Diliman, Quezon City 01 July 2010 to 30 June 2011

UPAAM/UPMASA Michigan UP Centennial Professorial Chair, University of the Philippines at Diliman, Quezon City 01 July 2011 to 30 June 2012

UP Diliman Centennial Faculty Grant, University of the Philippines at Diliman, Quezon City 01 July 2012 to 30 June 2013

## **Trainings**

Generation and Application of Multicolor Laser Light Produced via Stimulated Raman Scattering, Department of Physics, Ateneo de Manila University, Quezon City 2005 My 23

Workshop on Teaching Optics and Laser in Introductory Physics, Department of Physics, Ateneo de Manila University, Quezon City 2005 My 23

Workshop on Teaching Optics and Laser in Introductory Physics, Integrated Research and Training Center, Technological University of the Philippines, Manila 2004 My 19

Workshop on Plasma Physics, International Centre for Theoretical Physics 2003 N 10

Asian Science Seminar on High-Power Laser Matter Interactions, Senri Life Science Center, Osaka, Japan 1999 F 7

Research and Applications in Photoluminescence, Raman Spectroscopy & Ellipsometry, National Institute of Physics, University of the Philippines, Quezon City, Philippines 1998 Ag 22

UNIX Utilities and Commands, System Administration Pathworks and Load Sharing

Facility, Research Computer System Bldg., University of the Philippines, Quezon City, Philippines 1996 O 28

Introduction to Optical Fibre Technology, Ateneo de Manila University, Quezon City, Philippines 1994 F 28

Southeast Asian Laser School, University of the Philippines, Quezon City, Philippines 1988 JI 25

College on Lasers, Atomic and Molecular Physics, International Centre for Theoretical Physics 1985 Ja 21

## Researches

### On-going

Laser produced plasma

Generation and application of laser light produced via stimulated Raman scattering in gases and photonics fiber.

## Papers Presented

J. Vitug, K. Lampa, C. Olaya, J. De Vero, G. Santos and R. Sarmago (2013). Nanosecond and Femtosecond Laser Deposition of BiSrCaCuO on MgO, SPIE 8883, ICPS 2013: International Conference on Photonics Solutions.

A. Lacaba, L. Dasallas, F. Patricio (2013). Growth of Nd:YAG Thin Films on Silicon (111) Substrate Using Femtosecond Pulsed Laser Deposition, SPIE 8883, ICPS 2013: International Conference on Photonics Solutions.

J. Miranda and L. Dasallas (2013). Surface Morphological Properties of Graphite Ablated by Femtosecond Pulsed Laser, Philippine Association of Microscopist's and Philippine Society of Materials Science and Nanotechnology – Annual Scientific Conference and General Membership Meeting De La Salle University, Taft Avenue, Manila.

A. Lacaba (2013). Surface Topographical Properties of Nd:YAG Thin Films on Silicon (111) Substrate Grown by Femtosecond Pulsed Laser Deposition, 31st Samahang Pisika ng Pilipinas Congress University of San Carlos, Talamban Campus, Cebu City, Philippines.

F. Patricio, M. Calleja and A. Lacaba (2013). Structural and Morphological Structural and Morphological Characterization of Femtosecond Pulsed Laser Deposited Er:YAG on Silicon Substrate, 31st Samahang Pisika ng Pilipinas Congress University of San Carlos, Talamban Campus, Cebu City, Philippines.

K. Lampa and J. Beringuela (2013). Demonstration of Collisional Energy Transfer in He–Ne Glow Discharges Through Optical Emission Spectroscopy, 31st Samahang Pisika ng Pilipinas Congress University of San Carlos, Talamban Campus, Cebu City, Philippines.

J. Miranda, C. Olaya, L. Dasallas (2013). Spectroscopic Analysis of Femtosecond Pulsed Laser-Induced Graphite Plasma Plume, 31st Samahang Pisika ng Pilipinas Congress University of San Carlos, Talamban Campus, Cebu City, Philippines.

C. Olaya (2013). Analysis of Laser Crystals Through Transmission and Fluorescence Spectroscopy with LEDs, Laser Diodes and Lamps as Excitation Sources, 31st Samahang Pisika ng Pilipinas Congress University of San Carlos, Talamban Campus, Cebu City, Philippines.

Lean L. Dasllas, Arriane P. Lacaba, Gil. Nonato Santos and Jeffrey C. De Vero (2012). Surface Morphology of Nd:YAG Crystal Films Grown by fs-PLD, Microsphil 2012 Conference : Advancing National Development Through Microscopy Research (12th

Scientific Conference and General Assembly) CSB International Hotel, Manila.

J. de Vero and R. Sarmago (2012). Time-Resolved Optical Emission Spectroscopy and IR ND-YAG PLD of Bi-Sr-Ca-Cu-O, 22nd ASEMEP National Technical Symposium SMX Convention Center, Pasay City.

L. Dasallas (2012). Particle Size Distribution on Nd:YAG Films Deposited via Femtosecond Pulsed Laser Deposition, 30th Samahang Pisika ng Pilipinas Physics Congress De La Salle Health Sciences Institute, Dasmaringas City, Cavite, Philippines.

K. Lampa and J. Beringuela (2012). Spectroscopic Measurements of the Excitation Temperature and Electron Density of a Helium Discharge Lamp, 30th Samahang Pisika ng Pilipinas Physics Congress De La Salle Health Sciences Institute, Dasmaringas City, Cavite, Philippines.

J. Miranda and L. Dasallas (2012). Femtosecond Pulsed Laser Ablation of Graphite on Silicon, 30th Samahang Pisika ng Pilipinas Physics Congress De La Salle Health Sciences Institute, Dasmaringas City, Cavite, Philippines.

J. Grana (2012). Unknotting Times and Survival Rates of Knotted Ball-Chains on a Vibrating Platform, 30th Samahang Pisika ng Pilipinas Physics Congress De La Salle Health Sciences Institute, Dasmaringas City, Cavite, Philippines.

J. De Vero, G. Blanca, J. Vitug, R. Sarmago (2011). Infrared Pulsed Laser Deposition of Y-doped BSCCO Superconducting Thin Films, Advances in Optoelectronics and Micro/Nano-Optics (AOM).

L. Dasallas, A. Lacaba, A. Gallentes, G. Santos and J. de Vero (2011). Femtosecond Pulsed Laser Deposition of Nd:YAG Laser Crystal Films, 29th Samahang Pisika ng Pilipinas Physics Congress National Institute of Physics, U.P.–Diliman Campus.

J. Vitug, K. Lampa, C. Olaya, J. de Vero<sup>1</sup>, G. Santos, R. Sarmago (2011). Nanosecond and Femtosecond Laser Ablation of Pure and Y-Doped BSCCO, 29th Samahang Pisika ng Pilipinas Physics Congress National Institute of Physics, U.P.–Diliman Campus.

M. dela Rosa, C. Olaya and J. de Vero (2011). Spectroscopic Characterization of Er:YAG, Nd:YAG, Ruby and Ti:Sapphire Laser Crystals, 29th Samahang Pisika ng Pilipinas Physics Congress National Institute of Physics, U.P.–Diliman Campus.

J. de Vero, J. Vitug, R. Lopez and R. Sarmago (2011). Time-Integrated Optical Emission Spectroscopy of YBCO Plasma Produced by Infrared Nd:YAG Pulse Laser, 29th Samahang Pisika ng Pilipinas Physics Congress National Institute of Physics, U.P.–Diliman Campus.

J. de Vero, R. Lopez and R. Sarmago (2011). YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> films prepared by IR Nd:YAG PLD, 29th Samahang Pisika ng Pilipinas Physics Congress National Institute of Physics, U.P.–Diliman Campus, Quezon City.

Grace G. Manahan, Maria Leilani Y. Torres-Mapa (2010). Experimental and Numerical Analysis of Image Wavelength Conversion with a Hydrogen Raman Shifter, European Optical Society Annual Meeting 2010 – TOM 6: Nonlinear Optics and Photonics Paris, France.

J. C. de Vero, J.F. Gabayno, J. R. Vitug and R. V. Sarmago (2010). Time-Resolved Optical Emission Analysis and Growth of Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8+δ</sub> Thin Films, European Optical Society Annual Meeting 2010 – TOM 4: Micro-Optics Paris, France.

Jeffrey C. de Vero, Henry J. Ramos and Roland V. Sarmago (2010). Argon Plasma Etching of IR-PLD Grown Bi-2212 Thin Films, 28th Samahang Pisika ng Pilipinas Physics Congress MMLDC, Antipolo City, Philippines.

Jaziel R. Vitug, Jeffrey C. de Vero, Glaiza Rose S. Blanca and Roland V. Sarmago (2010). Temporal Evolution of the Electron Temperature and Density of Laser Produced  $\text{Bi}_2\text{Sr}_2\text{Ca}_{1-x}\text{Y}_x\text{Cu}_2\text{O}_{8-x}$  Plasma, 28th Samahang Pisika ng Pilipinas Physics Congress MMLDC, Antipolo City, Philippines.

Jeffrey C. de Vero, F. B. Awitan and Roland V. Sarmago (2010). Surface morphology of IR-PLD grown  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  Thin Films Etched by Hydrochloric Acid (HCl) Solution, 28th Samahang Pisika ng Pilipinas Physics Congress MMLDC, Antipolo City, Philippines.

Alladin C. Jasmin, Jeffrey C. de Vero, Lean L. Dasallas, and Roland V. Sarmago (2010). IR-PLD Assisted Growth of Iron Oxide Nanostructures, 28th Samahang Pisika ng Pilipinas Physics Congress MMLDC, Antipolo City, Philippines.

Rusty A. Lopez, Melvin John F. Empizo, Jaziel R. Vitug, Lean L. Dasallas, Jeffrey C. De Vero and Roland V. Sarmago (2010). Ex-Situ Heat Treatment and Oxygenation of  $\text{YBa}_2\text{Cu}_3\text{O}_y$  Thin Films Produced by Infrared Pulsed Laser Deposition (IR-PLD), 28th Samahang Pisika ng Pilipinas Physics Congress MMLDC, Antipolo City, Philippines.

Melvin John F. Empizo, Jeffrey C. De Vero and Roland V. Sarmago (2010). Growth Mechanism of Zinc Oxide Films by Infrared Pulsed Laser Deposition, 28th Samahang Pisika ng Pilipinas Physics Congress MMLDC, Antipolo City, Philippines.

Jacque Lynn Gabayno, Marilou Cadatal, Minh Pham, Elmer Estacio (2010). Tomoharu Nakazato, Toshihiko Shimizu, Nobuhiko Sarukura, Toshihisa Suyama, Kentaro Fukuda, Kyoung Jin Kim, Akira Yoshikawa, and Fumio Saito Experimental and Numerical Evaluation of Pump Energy Absorption in a Side-Pumped Ce:LiCAF Crystal Rod in a Prismatic Mirror Geometry, 28th Samahang Pisika ng Pilipinas Physics Congress MMLDC, Antipolo City, Philippines.

J. De Vero, Jacque Lynn F. Gabayno and R. Sarmago (2009).  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  Thin Films Prepared Using the 1064 nm Nd:YAG Pulsed Laser Deposition, 29th Annual Philippine – American Academy of Science and Engineering Meeting & Symposium Ateneo de Manila University, Quezon City.

J. Vitug, J de Vero, A Camba and G. Blanca (2009). Spectral Analysis of Laser Produced Y-Doped  $\text{BiSrCaCuO}$  Plasma, 29th Annual Philippine – American Academy of Science and Engineering Meeting & Symposium Ateneo de Manila University, Quezon City.

G. Manahan (2009). Numerical Study of Image Transfer from a Laser Source to First Stoke Image Using Finite Difference Method, 29th Annual Philippine – American Academy of Science and Engineering Meeting & Symposium Ateneo de Manila University, Quezon City.

J. de Vero, G. Blanca, J. Vitug and R. Sarmago (2009). Material Transfer Dynamics of Infrared (1064 nm) Nd:YAG pulsed Laser Deposition of Yttrium Doped  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  Thin Films DAE-BRNS 5, National Symposium on Pulsed Laser Deposition of Thin Films and Nanostructured Materials IIT Madras, Chennai, India.

J. Nador, E. Famador and J. Rotap (2009). Detection of Philippine Coins By Laser Induced Breakdown Spectroscopy (LIBS), 76th (2009) General Membership Assembly, National Research Council of the Philippines Manila Notel, Manila, Manila.

J. de Vero, J. Gabayno and R. V. Sarmago (2009). Fabrication of  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  films on MgO (001) by 1064 nm Nd:YAG Pulsed Laser Ablation, 76th (2009) General Membership Assembly, National Research Council of the Philippines Manila Notel, Manila, Manila.

J. Nador, E. Famador and J. Rotap (2009). Detection of Philippine Coins By Laser Induced Breakdown Spectroscopy (LIBS), 76th (2009) General Membership Assembly,

National Research Council of the Philippines Manila Hotel, Manila, Philippines.

J. de Vero, J. Gabayno and R. Sarmago (2009). Fabrication of  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  films on MgO (001) by 1064 nm Nd:YAG Pulsed Laser Ablation, 76th (2009) General Membership Assembly, National Research Council of the Philippines Manila Hotel, Manila, Philippines.

J. Gabayno, M. Cadatal-Raduban, M. Pham, E. Estacio, T. Nakazato, T. Shimizu, N. Sarukura, T. Suyama, K. Fukuda, K. Kim, A. Yoshikawa and F. Saito (2009). Side-Pumped, Prismatic-Cell Type Configuration for Amplification of Ultraviolet Femtosecond Pulse in a Micro-Pulling Down Method-Grown Ce:LiCAF, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

J. Rotap and E. Famador (2009). Trace Metal Detection in E. Crassipes (Water Hyacinth) from the Pasig River via Laser- Induced Breakdown Spectroscopy, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

W. Rara, A. Camba and J. Gabayno (2009). Absorption Spectra of Er:YAG, Nd:YAG, Ruby and Ti:Sapphire Laser Crystals in the Visible to the Near Infrared, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

J. de Vero, J. Vitug, X. Azurin, R. Lopez, M. Empizo, L. Dasallas and R. Sarmago (2009). Spectral Analysis of Laser Produced ZnO Plasma, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

J. de Vero, M. Empizo, R. Lopez, X. Azurin, L. Dasallas and R. Sarmago (2009). Transparent ZnO Thin Films Prepared by Infrared 1064 nm Nd: YAG Pulsed Laser Deposition, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

G. Blanca, J. de Vero, J. Vitug and R. Sarmago (2009). Fabrication of Yttrium-doped  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  Thin Films by Infrared 1064 nm Nd:YAG Pulsed Laser Deposition, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

J. de Vero, J. Gabayno and R. Sarmago (2009). Material Transfer Dynamics of Infrared 1064 nm Nd: YAG Pulsed Laser Deposition, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

K. Gepilano, J. de Vero, J. Vitug and R. Sarmago (2009). Influence of Annealing and Repeated Sintering on the Morphology of (Bi, Pb)-2223 Thin Films Fabricated by Infrared 1064 nm Nd: YAG Pulsed Laser Deposition, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

R. Jaziel, R. Vitug, J. de Vero, G. Blanca, A. Camba and R. Sarmago (2009). Optical Diagnostics of Laser Produced Y-Doped BiSrCaCuO Plasma Under Vacuum Condition, 27th Samahang Pisika ng Pilipinas Physics Congress Development Academy of the Philippines, Tagaytay City, Philippines.

(2008). Generation and Applications of Multicolor Laser Light Generated Via Stimulated Raman Scattering, Gases 27th APAMS : 2007 International S & T Conference INTEL Higher Education Program – 2008 Asia Academic Forum, Taipei, Taiwan.

J. De Vero, J. Gabayno and R.V. Sarmago (2008). Surface Morphology of Bi-2212 Films Grown by Pulsed Laser Deposition, 75th National Research Council of the Philippines Annual Meeting Manila Hotel, Manila.

G. Manahan and M.L. Torres (2008). Experimental and Numerical Analysis of Image Wavelength Conversion with a Raman Shifter, 75th National Research Council of the Philippines Annual Meeting Manila Hotel, Manila.

J. De Vero, J. Gabayno and R.V. Sarmago (2008). Surface Morphology of Bi-2212 Films Grown by Pulsed Laser Deposition NAST, Manila Hotel.

G. Manahan (2008). Numerical Analysis of Image Wavelength Down Conversion Using FD Method, 26th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Baguio.

A. Camba (2008). Instrument Control of SPEX 1404 Double Monochromator Using LabView Graphical User Interface, 26th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Baguio.

J. Vitug, J. de Vero, J. Gabayno and R. Sarmago (2008). Laser Deposition of Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8+δ</sub> on Si(111) Substrate at Room Temperature, 26th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Baguio.

D. Barrientos and J. Gabayno (2008). Characterization of Laser Ablation Sites on Silicon, 26th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Baguio.

J. Gabayno, W. Rara, J. de Vero and R. Sarmago (2008). Spectral Diagnostic of Laser-Produced BiSrCaCuO Plasma, 26th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Baguio.

J. de Vero, R. Sarmago and H. Ramos (2008). Effect of Argon Plasma Pre-Cleaning on Thin Film Quality in the 1064 nm Nd:YAG Pulsed Laser Ablation of Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8+δ</sub> on MgO Substrate, 26th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Baguio.

J. de Vero, J. Gabayno, J. Vitug and R. Sarmago (2008). Effect of Partial Melting and Annealing on Orientation, Surface Morphology and Transport Properties of Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8+δ</sub> Thin Films Fabricated via 1064 nm Nd:YAG Pulsed Laser Ablation, 26th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Baguio.

M. Torres, G. Manahan and L. Ramirez (2007). Frequency Image Conversion from the Laser Excitation to the Stokes Using a Hydrogen Raman Shifter, 27th APAMS : 2007 International S & T Conference Annual Philippine-American Academy of Science and Engineering Meeting & Symposium De La Salle University – Manila and Century Park Hotel – Manila, Philippines.

L. Ramirez, G. Manahan, E. Reyes and M. Torres (2007). The Nitrogen Raman Shifter – a Multicolor and Picosecond Light Source, 27th APAMS : 2007 International S & T Conference Annual Philippine – American Academy of Science and Engineering Meeting & Symposium De La Salle University – Manila and Century Park Hotel – Manila, Philippines.

J. Gabayno, F. Catalan, C. Alonzo (2007). A Broadband Light Source from a Femtosecond Laser-Pumped Nonlinear Photonic Crystal Fiber, 27th APAMS : 2007 International S & T Conference Annual Philippine – American Academy of Science and Engineering Meeting & Symposium De La Salle University – Manila and Century Park Hotel – Manila, Philippines.

M. Francisco, P. Arevalo, F. Ebreo and M. Paguio (2007). Laser – Induced Breakdown Spectroscopy in Air and in Water for Trace Element Detection, 27th APAMS : 2007 International S & T Conference Annual Philippine – American Academy of Science and

Engineering Meeting & Symposium De La Salle University – Manila and Century Park Hotel – Manila, Philippines.

(2007). Generation and Applications of Multicolor Laser Light Generated via Stimulated Raman Scattering in Gases, 25th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Los Banos, Laguna.

E. Famador and J. Gabayno (2007). Identification of Metal Alloy by Laser-Induced Breakdown Spectroscopy, 25th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Los Banos, Laguna.

M.C. Paguio, J.C. De Vero, A.C. Camba, J. Nadora and J. Gabayno (2007). Electrical Probe Measurement of Laser Induced Aluminum Plasma Under Atmospheric Pressure, 25th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Los Banos, Laguna.

G.G. Manahan and M.L. Torres (2007). Numerical Modeling of Gaussian Beam Propagation in a Stimulated Raman Scattering Medium Using Finite Difference (FD) Method, 25th Samahang Pisika ng Pilipinas Physics Congress University of the Philippines, Los Banos, Laguna.

Torres, M.L., Manahan, G.G., Ramirez, L.P., Garcia, W.O. (2006 O 25-27). Image Transfer from the Laser Excitation Pulse to the Stokes in a Hydrogen Raman Shifter, 24th Samahang Pisika ng Pilipinas Physics Congress, Ateneo de Davao University, Davao City.

Francisco, M.C., Arevalo, P.S., Ramirez, L.P., Ebreo, F.M., Paguio, M.C., Garcia, W.O. (2006 O 25-27). Laser Induced Breakdown Spectroscopy of Copper in Air, 24th Samahang Pisika ng Pilipinas Physics Congress, Ateneo de Davao University, Davao City.

Ramirez, L.P., Manahan, G., Reyes, E., Torres, M.L., Garcia, W.O. (2006 O 25-26). Temporal Behavior of Nitrogen Raman Lines with Increasing Input Energy, 24th Samahang Pisika ng Pilipinas Physics Congress, Ateneo de Davao University, Davao City.

Ramirez, L., Manahan, G., Torres, M., Cadatal, M., Garcia, W. (2005 O 26-28). Generation of a Multicolor Laser Light via Stimulated Raman Scattering in N<sub>2</sub>, 23rd Samahang Pisika ng Pilipinas Physics congress, Central Philippine University, Jaro, Iloilo City.

Ramirez, L., Manahan, G., Torres, M., Cadatal, M., Garcia, W. (2005 O 26-28). Generation of a Multicolor Laser Light via Stimulated Raman Scattering in N<sub>2</sub>, 23rd Samahang Pisika ng Pilipinas Physics congress, Central Philippine University, Jaro, Iloilo City.

Gabayno, J., Alonzo, C., Garcia, W. (2005 O 26-28). Supercontinuum Generation in a Femtosecond Laser Pumped Microstructured Photonic Crystal Fiber, 23rd Samahang Pisika ng Pilipinas Physics Congress, Central Philippine University, Jaro, Iloilo City.

Manahan, G., Ramirez, L., Torres, M., Cadatal, M., Garcia, W. (2005 O 26-28). Conversion Efficiency Enhancement of a H<sub>2</sub> Raman Shifter Using Capillary Waveguides with Different Bore Diameters, 23rd Samahang Pisika ng Pilipinas Physics Congress, Central Philippine University, Jaro, Iloilo City.

Catalan, F., Marana, B., Gabayno, J., Garcia, W. (2005 O 26-28). Stokes Generation by Stimulated Raman Scattering in a Multimode Optical Fiber, 23rd Samahang Pisika ng Pilipinas Physics Congress, Central Philippine University, Jaro, Iloilo City.

Torres, M., Pagdanganan, A., Ramirez, L., Manahan, G., Cadatal, M., Garcia, W. (2005 O

26-28). A Hydrogen Raman Shifter with Variable Focusing Geometry, 23rd Samahang Pisika ng Pilipinas Congress, Central Philippine University, Jaro, Iloilo City.

San Juan, J., Gabayno, J., Garcia, W. (2005 O 26-28). Power and Leght Dependence of Stimulated Raman Scattering in a Single Mode Optical Fiber, 23rd Samahang Pisika ng Pilipinas Physics Congress, Central Philippine University, Jaro, Iloilo City.

Manahan, G., Alonzo, C., Garcia, W. (2005 O 26-28). Stimulated Raman Scattering in Linearly Chirped Pulses, 23rd Samahang Pisika ng Pilipinas Physics Congress, Central Philippine University, Jaro, Iloilo City.

Manahan, G., Ramirez, L., Torres, M., Cadatal, M., Garcia, W. (2005 O 26-28). Effect of Varying Bore on the Threshold of Capillary Waveguide Hydrogen Raman Shifter, 23rd Samahang Pisika ng Pilipinas Physics Congress, Central Philippine University, Jaro, Iloilo City.

Francisco, M., Balois, M., Cadatal, M., Garcia, W., Almoró, P. (2005 26-28). Characteristics of a Novel Holographic Light Source: Hydrogen Raman Shifter Using an Elliptically-Polarized Pump, 23rd Samahang Pisika ng Pilipinas Physics Congress, Central Philippine University, Jaro, Iloilo City.

Gabayno, J.F., Alonzo, C.A., Garcia, W.O. (2004 O 25-27). Femtosecond Pulse Propagation in a Highly Nonlinear Photonic Crystal Fiber, 22nd Samahang Pisika ng Pilipinas Physics Congress, Bohol Tropics Resort, Tagbilaran City, Bohol.

Cadatal, M.M., Torres, L.Y., Garcia, W.O. (2004 O 25-27). Temporal Coherence Behavior of a Nd: YAG Pumped Waveguide Raman Shifter, 22nd Samahang Pisika ng Pilipinas Physics Congress, Bohol Tropics Resorts, Tagbilaran City, Bohol.

Marana, B.D., Gabayno, J.F., Garcia, W.O. (2004 O 25-27). Broadband Continuum Generation in Single-Mode Optical Fiber, 22nd Samahang Pisika ng Pilipinas Physics Congress, Bohol Tropics Resort, Tagbilaran City, Bohol.

Catalan, F.C., Alonzo, C.A., Garcia, W.O., Saloma, C. (2004 O 25-27). Axial Response of Blue LED's under Multiphoton Excitation, 22nd Samahang Pisika ng Pilipinas Physics Congress, Bohol Tropics Resort, Tagbilaran City, Bohol.

Torres, Ma. L.Y., Cadatal, M.M., Garcia, W.O. (2004 O 25-27). A Low Threshold Nd:YAG Laser Pumped Hydrogen Raman Shifter With Capillary Waveguide, 22nd Samahang Pisika ng Pilipinas Physics Congress, Bohol Tropics Resort, Tagbilaran City, Bohol.

Torres, Ma. L.Y., Cadatal, M.M., Garcia, W.O. (2004 O 25-27). A Low Threshold Nd:YAG Laser Pumped Hydrogen Raman Shifter With Capillary Waveguide, 22th Samahang Pisika ng Pilipinas Physics Congress, Bohol tropics Resort, Tagbilaran City, Bohol.

Catalan, F.C., Alonzo, C.A., Garcia, W.O., Saloma, C. (2004 O 25-27). Axial Response of Blue LED's under Multiphoton Excitation, 22nd Samahang Pisika ng Pilipinas Physics Congress, Bohol Tropics Resort, Tagbilaran City, Bohol.

Gabayno, J.F., Marana, B., Alonzo, C.A., Garcia, W. (2003 O 22-25). Stimulated Raman Scattering of a 532 nm Pulsed Nd: YAG Laser in Multi-Model Optical Fiber, 21st Samahang Pisika ng Pilipinas Physics Congress, University of San Carlos, Talamba, Cebu City.

Almoró, P., Cadatal, M., Daquiado, F., Garcia, W., Saloma, C. (2003 O 22-25). Pulsed Multicolor Digital Holography Using Hydrogen Raman Shifter, 21st Samahang Pisika ng Pilipinas Physics Congress, University of San Carlos, Talamban, Cebu City.

Pataleta, F., Ibarreta, R., Cadatal, M., Garcia, W. (2003 O 22-25). Raman Shifting of a 532 nm Nd:YAG Laser in Methane Gas, 21st Samahang Pisika ng Pilipinas Physics

Congress, University of San Carlos, Talamban, Cebu City.

Alonzo, C., Garcia, W., Saloma, C. (2003 O 22-25). Multiphoton Optical Beam-Induced Current in Blue Light-Emitting Diodes, 21st Samahang Pisika ng Pilipinas Physics Congress, University of San Carlos, Talamban, Cebu City.

Torres, M., Cadatal, M., Garcia, W. (2003 O 22-25). Stimulated Raman Scattering in a 532 nm Nd: YAG Laser Pump Hydrogen Raman Shifter with a Capillary Waveguide, 21st Samahang Pisika ng Pilipinas Physics Congress, University of San Carlos, Talamban, Cebu City.

J.F. Gabayno, B. Marana, C.A. Alonzo (2003). Stimulated Raman Scattering of a 532 nm Pulsed Nd:YAG Laser in Multi-Mode Optical Fiber, 21th Samahang Pisika ng Pilipinas Physics Congress University of San Carlos, Talamban, Cebu City.

P. Almoro, M. Cadatal, F. Daquiado and C. Saloma (2003). Pulsed Multicolor Digital Holography Using Hydrogen Raman Shifter, 21th Samahang Pisika ng Pilipinas Physics Congress University of San Carlos, Talamban, Cebu City.

F. Pataleta, R. Ibarreta and M. Cadatal (2003). Raman Shifting of a 532 nm Nd:YAG Laser in Methane Gas, 21th Samahang Pisika ng Pilipinas Physics Congress University of San Carlos, Talamban, Cebu City.

Palero, J., Garcia, W., Saloma, C. (2002 Ap 7-10). Efficient Two-Color Fluorescence excitation with Two Confocal Beams and a Raman Shifter, Focus on Microscopy, Grand Hotel, Kaohsiung Taiwan.

J. Palero and C. Saloma (2002). Hydrogen Raman Shifter: A Promising Light Source for Two-Color (Two-Photon) Excitation Fluorescence, 20th National Physics Congress Ateneo de Naga University, Naga City, Bicol.

A.L. Ortile, K.G. Law, Yu Eng Hong, R.V. Quiroga and G.N.C. Santos (2002). Pulsed Laser Deposited TiN<sub>2</sub> Coatings On Silicon Substrate, 20th National Physics Congress Ateneo de Naga University, Naga City, Bicol.

Palero, J., Garcia, W., Saloma, C. (2001 JI 15-19). Temporal Coherence Control of A Nd:YAG Pumped Raman Shifter, 4th Pacific Rim Conference on Laser and Electro-Optics, Nippon Convention Center, Chiba, Japan.

J. Palero, M. Baclayon and M.R. Daza (2001). Stokes Pulse Shapes in Stimulated Raman Scattering: A Numerical and Experimental Study, MSU-Iligan Institute of Technology, Iligan City.

J. Palero, R. Ibarreta (2001). Frequency Conversion of a 532 nm Nd: YAG Laser Using a Hydrogen Raman Shifter Proceedings of the 19th National Physics Congress, Saint Mary's University, Bayombong, Nueva Vizcaya.

J. Palero, R. Ibarreta (2001). Stimulated Rotational and Vibrational Raman Scattering in Hydrogen, 19th National Physics Congress Saint Mary's University, Bayombong, Nueva Vizcaya.

M. Baclayon, C. Alonzo (2001). Time of Flight Measurements of a 355nm Nd:YAG Laser-Produced Plasma, 19th National Physics Congress Saint Mary's University, Bayombong, Nueva Vizcaya.

J. Amistoso, E. Pabit and M. Hui (2000). Pulsed Laser Deposition of Titanium Nitride on Silicon in a Nitrogen Environment (Poster), 22nd Annual Scientific Meeting, National Academy of Science and Technology Manila Hotel, Manila.

M. Hui, M. Baclayon and J. Amistoso (2000). Temporal Evolution of the Electron

Temperature and Density in a 1064 nm Nd:YAG Laser Produced Copper Plasma, 18th National Physics Congress Asturias Hotel, Puerto Princessa, Palawan.

J. Palero, J. Amistoso, M. Baclayon (2000). Generation of UV, VIS and NIR Laser Light by Stimulated Raman Scattering in Hydrogen with a Pulsed 355 nm Nd:YAG Laser, 18th National Physics Congress Asturias Hotel, Puerto Princessa, Palawan.

J. Palero (2000). Temporal Behavior of the Stokes and Anti-Stokes Lines in a High-Pressure Hydrogen Raman Shifter, 18th National Physics Congress Asturias Hotel, Puerto Princessa, Palawan.

M. Baclayon, J. Palero and M.R. Daza (2000). Stokes Pulse Shapes in Steady-State Stimulated Raman Scattering in Hydrogen, 18th National Physics Congress Asturias Hotel, Puerto Princessa, Palawan.

Amistoso, J., Pabit, E. (1999 F 09). Pulsed Laser Desposition of TiN, Asian Science Seminar on High-Power Laser matter Interactions, Senri Life Science Center, Osaka, Japan.

J. Amistoso, E. Pabit and M. Hui (1999). Pulsed Laser Deposition of Titanium Nitride on Silicon in a Nitrogen Environment, 17th National Physics Congress Leyte Normal University, Tacloban City, Leyte.

V. Daria, J. Amistoso and C. Saloma (1998). Imaging Properties of Two-Photon Fluorescence Exciation Using Nanosecond-Pulse Laser with Tuning Range from 450 to 1800 nm, 16th National Physics Congress Ateneo de Manila University, Quezon City.

E. Pabit (1997). A 6 mJ TEA Nitrogen Laser, 15th National Physics Congress University of San Carlos, Talamban Campus, Cebu City.

A. Palonpon, R. Absin, J. Amistoso, J. Holdsworth and C. Saloma (1997). Noise Aided Detection of Weak Transmittance by a One-Bit AD Converter, 15th National Physics Congress University of San Carlos, Talamban Campus, Cebu City.

A. Montecillo (1994). A Nitrogen Pumped Dye Laser System, 12th National Physics Congress De La Salle University, Manila.

J. Guzman, A. Montecillo (1994). Characterization of a UV-Preionized Transversely Excited Nitrogen Laser, 12th National Physics Congress De La Salle University, Manila.

M. Dizon, A. Montecillo (1994). A TE Nitrogen Laser with an Automatic UV Preionization, 12th National Physics Congress De La Salle University, Manila.

M. Dizon and L. Posadas (1993). A UV Preionization XeCl Laser, 11th Samahang Pisika ng Pilipinas Congress Marine Science Institute Station, Bolinao, Pangasinan.

J. Labanda (1989). Output Characteristics of a TEA Nitrogen Laser, 2nd ASEAN Science and Technology Week.

P. Dailisan and M. Daza (1989). Development of a UV-Preionized TEA Carbon Dioxide Laser, 8th Samahang Pisika ng Philipinas Congress.

J. Labanda (1988). Design and Construction of a TE High Pressure Nitrogen Laser, 7th Samahang Pisika ng Pilipinas Congress.

S. Peralta (1988). Measurements on a Helical Bifilar Transversely-Excited Carbon Dioxide Laser, 7th Samahang Pisika ng Pilipinas Congress.

J. C. De Vero and R.V. Sarmago (15 to 18 June 2011). High Tc Superconducting Films, Pulsed Laser Deposition 31st Annual Meeting & Symposium, The Philippine-American Academy of Science and Engineering, U.P. - Diliman Campus, Quezon City, Philippines.

J. R. Vitug, J. C. De Vero and R. V. Sarmago (15 to 18 June 2011). Study of Plasma Emission Spectral Properties and Film Characteristics of Pulsed Laser Deposited  $\text{Bi}_2\text{Sr}_2\text{CaY}_{1-x}\text{Cu}_2\text{O}$  in Vacuum and Ambient Air, 31st Annual Meeting & Symposium, The Philippine-American Academy of Science and Engineering, U.P. - Diliman Campus, Quezon City, Philippines.

S. Peralta, P. Chua, A. Salvador and J. Dadap Jr. (01 to 03 June 1984). Development of a Pulsed Nitrogen Laser, 3rd Samahang Pisika ng Pilipinas Congress Angono, Rizal.

## Publications

- 2012 Jeffrey De Vero, Rusty Lopez and Roland Sarmago Post Deposition Heat Treatment Effects on Ceramic Superconducting Films Produced by Infrared. InTech, 2012.
- 2011 Percival Almoro and Caesar Saloma Pulsed Full-Color Digital Holography with a Raman Shifter Holography, Research and Technologies. InTech, 2011.
- 2005 Alonzo, C., Saloma, C. Generation of optical beam induced current via two-color (two photon) excitation. Optics Communications, 2005, 246:117-122.
- 2005 Torres, M., Cadatal, M. A Nd:YAG laser pumped hydrogen Raman shifter with capillary waveguide. Science Diliman, 2005, 17(1):37-46.
- 2004 Almoro, P., Cadatal, M., Saloma, C. Pulsed full color digital holography with a hydrogen Raman shifter. Applied Optics, 2004, 43(11):2267-2271.
- 2004 Marana, B., Gabayno, J. Broadband continuum generation in single-mode optical fiber. Science Diliman, 2004, 16(2):70-73.
- 2004 Cadatal, M., Torres, M. Temporal coherence behavior of a Nd: YAG pumped wavelength Raman Shifter. Science Diliman, 2004, 16(2):95-100.
- 2003 Gabayno, J., Alonzo, C. Time-of-flight measurement of a 355 nm Nd:YAG laser produced aluminum plasma. Science Diliman, 2003, 16(2):66-69.
- 2002 Palero, J. and Saloma, C. Two color (two-photon) excitation fluorescence with two confocal beams and Rahman shifter. Optics Communications, 2002, 211:65-71.
- 2001 Palero, J., Saloma, C. Temporal coherence control of a Nd:YAG pumped Raman shifter. Optics Communications, 2001, 197:109-114.
- 2001 Palero, J.A. Frequency conversion of the 355 nm Nd:YAG laser via stimulated Raman scattering. Science Diliman, 2001, 13(1):66-72.
- 1999 Amistoso, J.O., Pabit, E., Hui, M. Pulsed 1046 nm Nd-YAG laser deposition of titanium on silicon in a nitrogen environment. Science Diliman, 1999, 11(2):33-38.
- 1998 Palonpon, A., Amistoso, J., Holdsworth, J., Saloma, C. Measurement of weak transmittances via stochastic resonance. Optics Letters, 1998, 23(18):1480-1482.
- 1984 Peralta, S., Chua, W., Salvador, A., Dadap, J. Jr. Development of a pulsed nitrogen laser. Natural and Applied Science, 1984, 36(1).
- 1984 Peralta, S., Chua, P. High power molecular nitrogen laser: Construction and operation. Natural and Applied Science Bulletin, 1984, 36(2).
- Alonzo, C. and Saloma, C. Crosstalk between two photon and two color (Two photon) excitation in optical beam induced current generation with two confocal excitation beams. Optics Communications, .

**Name** Nathaniel P. Hermosa

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Instructor 7, National Institute of Physics, College of Science, University of the Philippines Diliman, Philippines

Postdoc, Huygens Laboratory, Leiden University, The Netherlands

Assistant Professor, Ateneo de Manila University, Quezon City, Philippines

Assistant Professor, University of the Philippines Manila, Manila, Philippines

Research Fellow, Institut de Ciències Fotòniques (ICFO), Castelldefels (Barcelona), Spain

**Education**

Doctor of Philosophy, University of the Philippines Diliman, Philippines, Diliman, Philippines 2001-2007

Master of Science, University of the Philippines Diliman, Philippines, Diliman, Philippines 1999-2001

Bachelor of Science, University of the Philippines Diliman, Philippines, Diliman, Philippines 1994-1999

**Fields of Specialization**

Applied Physics with Material Science as concentration

Physics with Photonics

Physics with Optics

**Papers Presented**

K. Guto (October 2003). Degenerate Four-wave mixing in a Methyl Red doped Nematic Liquid Crystal, 21th SPP Physics Congress, Talamban, Cebu.

C. Manaois (October 2003). Generation of Higher-Order Laguerre Gaussian Modes via Computer Generated Hologram, 21th SPP Physics Congress, Talamban, Cebu.

M. Estonactoc and P. Rodrigo (October 2002). Electro-optic Characteristics of Millisecond Response CANCE-doped Twisted Nematic E7 LC Cell, 20th SPP Physics Congress, Naga City, Camarines Sur.

J. Muldera and Z. Domingo (October 2002). Surface Alignment Effects on the Structural Behavior of Cholesteric Liquid Crystal TM74A:E48 Mixture (60:40 weight ratio), 20th SPP Physics Congress, Naga City, Camarines Sur.

J. Gabayno and M. Daza (October 2002). Optical Signal and Image Amplification Studies in Dye- Doped Nematic Liquid Crystal E7, 20th SPP Physics Congress, Naga City, Camarines Sur.

Baclig, A. Francia and C. Mahinay (October 2002). Conceptual Survey in Electricity and Magnetism (CSEM) at the National Institute of Physics, 20th SPP Physics Congress, Naga City, Camarines Sur.

MR Daza (October 2001). Holographic Gratings in a Methyl-red Doped PDLC, 19th SPP Physics Congress, Bayombong, Nueva Vizcaya.

MR Daza (October 2001). Micro-Holograms in a Methyl-red Doped PDLC, 19th SPP Physics Congress, Bayombong, Nueva Vizcaya.

J. Gabayno and MR Daza (October 2001). Signal Amplification in a methyl red doped nematic liquid crystal, 19th SPP Physics Congress, Bayombong, Nueva Vizcaya.

D. Palima, R. Amor and MR Daza (October 2001). Laser induced nonlocal refractive index change in a methyl red doped nematic liquid crystal E7, 9th SPP Physics Congress, Bayombong, Nueva Vizcaya.

MR Daza (October 2000). All-Optical Dynamic Filtering using Nematic Liquid Crystals, 18th SPP Physics Congress, Puerto Princesa, Palawan.

A. Francia and MR Daza (October 2000). Holographic Gratings in a Methyl-red Doped PDLC, 18th SPP Physics Congress, Puerto Princesa, Palawan.

R. Guerrero and MR Daza (October 1999). Reconstruction Characteristics of Holographic Data Stored in a BSO Crystal, 7th SPP Physics Congress, Tacloban City, Leyte.

R. Guerrero and MR Daza (October 1998). Pump Beam Depletion via Inverse Ratio Two-Wave Mixing, 16th SPP Physics Congress, Quezon City.

(March 2009). Bored Helical Phase: Intensity Profiles and Propagation, Quantum Optics and Quantum Information group, Huygens Laboratory, Leiden University, The Netherlands.

A. Francia Jr and MR Daza (July 2001). Polarization Dependent Optical Grating in a Methyl Red Doped Polymer Dispersed Liquid Crystal (E48:PVP), 4th Pacific Rim Conference on Laser and Electro-Optics (CLEO/PR2001), Chiba, Japan.

(8 September 2011). Revisiting Reaction: Orbital Angular Momentum induced beam shifts, ICFO Seminars, Castelldefels (Barcelona), Spain.

MR Daza (7-11 July 2002). Storage of Micro-Holograms in a Methyl Red Doped Polymer Dispersed Liquid Crystal, 4th Joint International Symposium on Optical Memory and Optical Data Storage, Waikoloa, Hawaii.

(4-9 February 2007). Helico-Conical Optical Beams and their limits for non-diffraction and self-reconstruction, ESF-FWF Conference in Partnership with LFUI Conference on Trends in Optical Micromanipulation in Obergurgl, near Innsbruck, Austria ESF-FWF Conference on Trends in Optical Micromanipulation.

M. Estonactoc, P. Rodrigo, R. Amor (30 June - 5 July 2002). Twisted-Nematic Liquid Crystal (E7-Cance) Cells On Driving Voltage Amplitude and Frequency, 9th International Liquid Crystal Conference, Edinburgh UK.

A. Francia Jr., G. Naceno, Z. Domingo (30 June - 5 July 2002). Holographic Gratings in Polymer-LC Composites, 9th International Liquid Crystal Conference, Edinburgh UK.

R. Amor and M. Daza (30 June - 5 July 2002). Holographic Image Formation In Dye-Doped Nematic Liquid Crystals, 9th International Liquid Crystal Conference, Edinburgh UK.

J. Muldera and Z. Domingo (30 June - 5 July 2002). Structural Behavior of Cholesteric Liquid Crystal TM74A:E48 Mixture (60:40 weight ratio) with Different Surface Alignments, 9th International Liquid Crystal Conference, Edinburgh UK.

M. Merano, A. Aiello and J.P. Woerdman (28 March-1 April, 2011). Orbital Angular

Momentum induced beam shifts, International Lorentz Workshop Beam shifts: Analogies between light and matter waves, Leiden, The Netherlands.

C. Manaois (26-28 October 2005). Optical Structures with Linearly Increasing Non-integer Topological Charge, Samahang Pisika ng Pilipinas, Vol. 2, (ISSN 1656-2666), 23rd SPP Physics Congress, Central Philippine University, Jaro, Iloilo City.

(26-28 October 2005). Mental Models of a Group of Public High School Physics Teachers, Samahang Pisika ng Pilipinas, Vol. 2, (ISSN 1656-2666), 23rd SPP Physics Congress, Central Philippine University, Jaro, Iloilo City.

(25-27 October 2006). Self-Reconstruction and Psuedo-Nondiraction Properties of Helico-Conical Optical Beams, Samahang Pisika ng Pilipinas, Vol. 3, (ISSN 1656-2666), 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

C. Manaois (25-27 October 2004). Optical Vortices from Laguerre-Gaussian Beam and Nematic Liquid Crystal Interaction, Samahang Pisika ng Pilipinas, Vol.1, (ISSN 1656-2666), 22nd SPP Physics Congress, Bohol Tropics, Tagbilaran City.

S. Baluyot (24-28 March 2008). Bored Helical Phases: Dynamics of Intensity Proles and Poynting Vector Calculation upon Propagation, Invited presentation, Progress in Electromagnetics Research Symposium, Hangzhou, China.

S. Baluyot (24-26 October 2007). Bored Helical Phases: Intensity Proles and Propagation, Proceedings of the Samahang Pisika ng Pilipinas, Vol. 4 (ISSN 1656-2666), 25th SPP Physics Congress, University of the Philippines, Los Banos, Laguna.

M. Merano, A. Aiello and J.P. Woerdman (22-27 January 2011). Orbital Angular Momentum induced beam shifts, SPIE-Photonics West, San Francisco, USA.

S. Baluyot (22-24 October 2008). Selective phase shift induced bored helical beam rotation, Samahang Pisika ng Pilipinas, Vol. 5, (ISSN 1656-2666), 26th SPP Physics Congress, University of the Philippines Baguio, Baguio City.

P. Co (22-24 October 2008). Light through a Novel Lens, Samahang Pisika ng Pilipinas, Vol. 5, (ISSN 1656-2666), 26th SPP Physics Congress, University of the Philippines Baguio, Baguio City.

C. Rosales-Guzmán, S.F. Pereira, and J. P. Torres (2-8 March 2014). Nanolayer thickness detection via spatial mode projection, Nanolight 2014, Benasque, Spain.

C. Rosales-Guzmán, A. Belmonte and J.P. Torres (2-5 June 2013.). Transverse Doppler Eect using optical beams with a twist, Second International Conference on Optical Angular Momentum, Glasgow, UK.

## Publications

- |      |   |
|------|---|
| 2008 | S. Baluyot Bored Helical Phases: Intensity Proles and Propagation. PISIKA 1, January 2008.  |
| 2003 | MR Daza Micro-Holograms in a Methyl Red Doped Polymer Dispersed Liquid Crystal. Science Diliman, Jan-June 2003.   |
| 2014 | C. Rosales-Guzman, A. Belmonte, J. P. Torres Measuring the translational and rotational velocity of particles in helical motion using structured light. Optics Express, 2014. |
| 2014 | C. Rosales-Guzman, S.F. Pereira, and J. P. Torres Nanolayer thickness detection via spatial mode projection. Opt. Lett, 2014.   |
| 2013 | C. Rosales-Guzman, A. Belmonte, J. P. Torres Experimental detection of transverse   |

- particle movement with structured light. *Sci. Rep.*, 2013.
- 2013 G. Puentes and J. P. Torres Puentes, Hermosa, and Torres Reply. *Phys. Rev. Lett*, 2013.
- 2013 C. Rosales-Guzman and J. P. Torres Helico-conical optical beams self-heal. *Opt. Lett*, 2013.
- 2013 W. Loer, Andrea Aiello, and J. P. Woerdman Total internal reection of orbital angular momentum beams. *J. Opt.*, 2013.
- 2012 J. P. Torres, G. Puentes, L. J. Salazar-Serrano Weak interference in the high-signal regime. *Opt. Express*, 2012.
- 2012 G. Puentes and J. P. Torres Weak measurements with orbital-angular-momentum pointer states. *Phys. Rev. Lett*, 2012.
- 2012 A. Aiello and J.P. Woerdman Radial mode dependence of optical beam shifts. *Optics Letters*, 2012.
- 2011 A.M. Nugrawati, A. Aiello and J.P. Woerdman Spin Hall eect of light in metallic reection. *Optics Letters*, 2011.
- 2011 A. Aiello and J.P. Woerdman Quadrant detector calibration for optical vortex. *Optics Letters*, 2011.
- 2011 M. Merano, A. Aiello and J.P. Woerdman Orbital Angular Momentum induced beam shifts. *SPIE*, 2011.
- 2010 M. Merano, A. Aiello and J.P. Woerdman How orbital angular momentum aects beam shifts in optical reections. *Phys Rev A*, 2010.
- 2010 M. Merano, A. Aiello and J.P. Woerdman Demonstration of a quasi-scalar angular Goos Hanchen eect. *Optics Letters*, 2010.
- 2010 S. Baluyot Controllable rotation of optical beams with bored helical phases. *Applied Optics*, 2010.
- 2009 S. Baluyot Intensity proles and propagation of optics beams with bored helical phase. *Optics Express*, 2009.
- 2007 C.O. Manaois Phase Structure of Helico-Conical Optical Beams. *Optics Communications*, 2007.
- 2002 M.R. Daza Storage of micro-holograms in a methyl red doped polymer dispersed liquid crystal. *International Symposium on Optical Memory and Optical Data Storage Topical Meeting Technical Digest*, 2002.
- 2001 A. Francia and M.R. Daza Polarization dependent optical grating in a methyl red doped polymer dispersed liquid crystal (E48 : PVP),. *Technical Digest*, 2001.
- C. Rosales-Guzman, A. Belmonte, J. P. Torres Direction-sensitive transverse velocity measurement by phase-modulated structured light beams. *Optics Letters*.

**Name** Erlinda L. Mari  
**Place of Birth** Tarlac, Tarlac  
**Date of Birth** April 6, 1954  
**Gender** Female  
**Civil Status** Married  
**Home Address** # 6 Third Street, Marymount Village Los Baños, Laguna 4030, Philippines

**Organizational Affiliations**

Scientist I, FPRDI-DOST, Los Baños, Laguna

Senior Science Research Specialist, Chemical Processing and Product Development Div., FPRDI-DOST, College, Laguna

Senior Science Research Specialist, Forest Products Research and Development Institute, Department of Science and Technology College, Laguna

**Education**

Master of Science in Agriculture, Tottori University, Tottori, Japan 1986 April - 1988 March

Bachelor of Science in Chemical Engineering, National University, Manila, Philippines 1971 June -1976 April

Doctor of Science in Agriculture, Tokyo University of Agriculture and Technology, Tokyo, Japan 1988 March-April

**Fields of Specialization**

Wastewater Management

Chemical Engineering

Biomass Utilization

Panels

Wastewater Treatment

Cleaner Production Technology

Energy Audit

Internal Audit

Environmental Risk Assessment

Environmental Management System

Cleaner Production Technologies Assessment

**Association Membership**

Regular Member, National Research Council of the Philippines

Member, Japan Wood Research Society

Member, Philippine Association of Career Scientists (PACS)

Member, Philippine Institute of Chemical Engineers (PICHE)

Member, Philippine Association for the Advancement of Science (PHILAAS)  
Member, Technical Association of the Pulp and Paper Industry-Phil (TAPPI-P)  
Member, Kapisanan ng mga Kimiko sa Pilipinas - Los Baños (KKP-LB)  
Member, Philippine Association of Japan Ministry of Education Scholars (PHILAJAMES)  
Member, Forest Research Society of the Philippines (FORESPI)  
Member, Tropical Agriculture & Forestry Technical Development Ass'n. (TAFT-DA) (NGO)

### **Honors / Awards**

Conferred Scientist I, Scientific Career System 1998 Aug 20

Best Paper (R&D) Paper Mill Sludge as Fiber Additive for Asphalt Road Pavement, Southern Tagalog Agriculture and Resources Research and Development Consortium (STARRDEC) 2007 Aug 24

Research Paper Award on Agriculture and Natural Resources for the Paper, 1995

Best Paper on Technology Dissemination for the Paper, STARRDEC 1995

2nd Place for Production of Abaca based Paper for Currency Notes, STARRDEC 1999

R & D Best Paper Mill Sludge as Fiber Additive for Asphalt Road Pavement, STARRDEC 2007

7th Regional S & T for a Competition in the Industry and Energy R & D, PCIERD

3rd Prize in Poster Competition (Sr. awardee), STARRDEC 1999-2000

Recognition Award for winning 3rd Prize in Poster Competition (Co-Awardee), STARRDEC 2000

Forestry and Natural Resources, F.S. Pollisco R & D Award 1993

2nd Place for Effluent Treatment for a Healthy Environment, FPRDI 42nd Anniversary Celebrations 1999

Recognition Award, FPRDI 1996

1st Place for "Suitability of some industrial tree plantation species and fruit trees for fruit wi, STARRDEC 2013

Research Chair Holder, FPRDI 2010-2011

Best Technical Paper Award "Paper Mill Sludge as Fiber Additive for Asphalt Road Pavement", FPRDI 2007

1st place, STARRDEC R & D Paper Award July 4, 2008

FPRDI Recognition Award for qualifying in PCIERD's, 7th Regional S & T For a and Competitions in the Industry & Energy R & D July 4, 2008

Qualifier, PCIERD 7th Regional S & T For a and Competitions in the Industry and Energy R & D feb 13 2008

### **Trainings**

5th IAWQ Asian Regional Conference on water Quality and Pollution Control, 1996

4th Annual Meeting of the Environmental Research Society of Japan, 1996

## Papers Presented

C.O Austria and J.C. Buendia (2012). Method of obtaining extracts and pulp for papermaking from water hyacinth, Bureau of Patents. Intellectual Property Philippines.

(2007 Ag 23). Paper Mill Sludge as Fiber Additive for Asphalt Road Pavement, 20th Regional Symposium on Research and Development Highlights & Technology Investment Forum Southern Tagalog Agriculture and Resources Research and Development Consortium (STARRDEC), University of Rizal System.

(2007 Ag 21). Paper Mill Sludge as Fiber Additive for Asphalt Road Pavement, FPRDI Technical Seminar Series 2007 FPRDI College Laguna.

Nakanishi, Y., Souma, I., Higashi, K., Sawada, Y. (1996). Treatment of Domestic Wastewater Using Charcoal, 4th Annual Meeting of the Environmental Research Society of Japan.

Mora, M.S.R., Laxamana, N.B., Unciano, H.C., Estudillo, C.P., Nakanishi, Y., Higashi, K., Souma, I. (1995). Study on Water Treatment, 5th IAWQ Asian Regional Conference on water Quality and Pollution Control.

## Publications

- 2012 Parchment-Like Paper Using Water Hyacinth Pulp. Philippine Journal of Science, 2012.
- 2012 C. A. Cuaresma, W. H. Carmelo, and R. A. Zamora Appreciating the FPRDI Furnace-type lumber dryer (FTLD) in the context of climate change. Phil. Forest Products Journal, 2012.
- 2011 A. S. Torres, C. O. Austria And A. B. P. Ramos Recycling Mimeograph-printed Newsprint Paper. ASEAN J. Sci. Technol. Dev, 2011.
- 2009 M. S. R. Moran and C.O. Austria Paper Mill Sludge as Fiber Additive for Asphalt Road Pavement. Philippine Journal of Science, 2009.
- 2007 C. O. Austria, and ARP Lapuz Effect of water hyacinth extract on paper. FPRDI Journal, 2007.
- 2006 Effects of salt and alum on color and color fastness of dyed handmade paper. FPRDI Journal, 2006.
- 2005 Maximizing dye use and reducing pollution using fixing agents. FPRDI Journal, 2005.
- 2004 C. M. C. Garcia Market potential of nursery pots from paper mill sludge. FPRDI Journal, 2004.
- 2004 Moran, M. S. R., F B. Sevilla Chemically modified cashew (*Anacardium occidentale*) shell residue as an adsorbent for heavy metal ions. FPRDI Journal, 2004.
- 2004 Visco, E. S., F. A. Cruz Dynamics of knowledge transfer and utilization of the FPRDI wood finishing technology in Region II. FPRDI Journal, 2004.
- 2003 T. Sakuno Bark-foam composites: From insulation panel to heavy metal ion scavenger. FPRDI Journal, 2003.
- 2002 Austria, C.O., Decena, A.A. Application of a wastewater treatment system for small scale handmade paper mills. FPRDI College Laguna, 2002.
- 2001 Austria, C.O., Decena, A.A. Treatment of wastewater from handmade paper (HMP) making. FPRDI Journal, 2001, 27(1-2):55-65.

- 2001 Austria, C.O Determination of the acute lethal toxicity of effluent from pulp and paper mills. FPRDI Journal, 2001, 27(1-2):35-53.
- 2000 Kiguchi,M., Suzuki,M. Significance of acid and heat treatments on non-conventional bonding of giant ipil-ipil (*Leucaena leucocephala*). Journal of Tropical Products, 2000, 6:(1):48-61.
- 2000 M. Kiguchi and M. Suzuki Significance of acid and heat treatments on non-conventional bonding of giant ipil-ipil (*Leucaena leucocephala*). Journal of Tropical Products, 2000.
- 1999 Moran M.S., Estudillo,C.P. Treatment of FPRDI Paper Mill Effluent. FPRDI Journal, 1999, 25:20-27.
- 1999 Properties of gypsum bonded boards from ipil-ipil (*Leucaena leucocephala* (lam.de Wit.) using commercial gypsum and phosphogypsum as binders. FPRDI Journal, 1999, 25(1-2):91-97.
- 1999 Moran, M.S.R., Estudillo, C.P. Charcoal for treatment of colored wastewater. FPRDI Journal, 1999, 25(1-2):99-105.
- 1998 Moran, M.S.R., Estudillo, C.P. Monitoring and treatment of effluent from the FPRDI paper mill. Terminal Report FPRDI Library, 1998.
- 1998 Mabilangan, L.C., Torres, A.S., Estudillo, C.P. Production of base paper for currency notes. FPRDI Journal, 1998, 24(1):1-9.
- 1996 Binderless Boards from coconut (*Cocos nucifera* L.) coir dust. FPRDI Journal, 1996, 22(1):45-54.
- 1996 Gonzales, V.E., Mari,J.P. Effects of moisture on the physical and creep properties of reconstituted panels. FPRDI Journal, 1996, 22(2):21-37.
- 1994 Nakanishi, Y., Souma, I., Unciano, C., Laxamana, N.B. Preparation method for charcoal in the philippines and its improvement. Bulletin of the Osaka National Residential Institution, 1994, 45(3):95-100.
- 1993 Higashi, K.I., Souma, I. Status of water pollution in the Philippines and the possibility of using charcoal for water treatment. Water Treatment Technology, 1993, 34(10):27-35.
- 1991 Pablo, J.V., Pablo, A.A. Production of gypsum bonded panels from cocowood (*Cocos nucifera* L.). FPRDI Journal, 1991, 2(1-2):73-82.
- 1991 Development of insulation materials from woodbark and volcanic ash. FPRDI Journal, 1991, 20(3-4):69-76.
- 1990 Sakuno, T. Properties of particlesboards prepared from surface activated wood separate application of furfuryl alcohol and isocyanate resin. Mokuzai Gakkaishi Journal of Japan Wood Research Society, 1990, 36(5):354-361.
- 1989 Suzuki, M. The effect of wood substrate on the reaction products of furfuryl alcohol isocyanate resin.. Bulletin of the Experiment Forest Tokyo Univiversity of Agriculture and Technolgy, 1989, 26:63-68.
- 1989 Sakuno, T., Furukawa, I., Kishimoto, J. Properties of particleboards prepared from surface activated wood application of furfuryl alcohol isocyanate resin mixtures. Journal Japan Wood Research Society, 1989, 35(7):669-674.
- 1988 Sakuno, T., Furukawa, I., Kishimoto, J. Bonding of surface activated wood, bonding properties of two plywood. Residential Buletin Tottori Univercity Forests, 1988, 17:179-191.

- 1987 Sakuno, T., Iwashita, M. Effect of some manufacturing variables on the formaldehyde emission and the mechanical and physical properties of particleboard. Journal Faculty Agricultural Tottori University, 1987, 23:1-8.
- 1983 Canadido, L.S., Generalla, N.C., Pablo, A.A. Application of fire retardants in particleboard. FPRDI Journal, 1983, 12(3-4):49-60.
- 1980 Lajara, E.A., Pablo, A.A. Water hyacinth for accoustical board. NSDB Technology Journal, 1980, 5(2).

**Name** Marcela M. Navasero  
**Gender** Female  
**Civil Status** Married  
**Home Address** 330 Mayondon, Los Baños, Laguna

**Organizational Affiliations**

University Researcher I, Dept. of Plant Pathology, College of Agriculture, UPLB, College, Laguna

University Researcher, National Crop, Protection Center-Crop Protection Cluster (NCPC-CPC), University of the Philippines Los Baños-College of Agriculture (UPLB-CA)

Scientist I, National Crop, Protection Center-Crop Protection Cluster (NCPC-CPC), University of the Philippines Los Baños-College of Agriculture (UPLB-CA)

**Education**

M.S. in Entomology, University of the Philippines Los Baños, Los Baños Laguna 1997

B.S. in Agriculture, University of the Philippines Los Baños, Los Baños Laguna 1982

**Fields of Specialization**

Biological Sciences

Biological Control

**Employment**

Scientist I, NCPC-CPC, UPLB-CA, March 13, 2013-present

University Researcher, CPC, UPLB-CA, Aug 1997-March 12, 2013

Research Assistant, CPC, UPLB-CA, Aug 1997-March 12, 2013

**Association Membership**

Regular Member, National Research Council of the Philippines (NRCP)

Member, Philippine Association of Career Scientists, Inc

Member, Gamma Sigma Honor Society for Agriculture

Member, UP REPSA

Member, Philippine Association of Entomologists

Member, All-UP-Workers Union

**Honors / Awards**

Scientist I, Department of Science and Technology and the Civil Service Commission  
March 13, 2013

2013 International Publication Award, Philippine Journal of Science 2013

2013 International Publication Award, Philippine Journal 2013

2013 International Publication Award, Philippine Entomologist 2013

2013 International Publication Award, The Philippine Entomologists 2013

2013 International Publication Award, The Philippine Entomologist 2013

Best Poster Award, 2013, 80th General NRCP Membership Assembly. Manila Hotel, Rizal Park, Manila March 13, 2013

Best Poster Award, 2003, 34th Pest Management Council of the Philippines Convention. Cebu Business Hotel, Cebu City May 6-9, 2003

Best Extension Team, Member Plant Pest Clinic 1992

Member Plant Pest Clinic, PAG-ASA Award 1992

Member Plant Pest Clinic, Gawad Pagkilala, Governors Office-Laguna 1992

PMCP Achievement Award, Member Plant Pest Clinic 1997

Philippine Sugar Commission Undergraduate Scholarship Program Grantee, University of the Philippines Los Baños Laguna 1978-1982

Reduced fee for UP employee (Masteral), University of the Philippines Los Baños Laguna 1994-1997

Academic Excellence Award, Gamma Sigma Honor Society for Agriculture 1997

## **Trainings**

Training on farm-level collection, preparation, preservation & utilization of nuclear polyhedrosis v, Bantug Samahang Nayon Multi-purpose Cooperative, Asingan, Pangasinan October 2003

Farmer's Forum and Pest Clinic, 45th Anniversary and Annual Scientific Conference Capitol Bldg., Cebu City May 7, 2014

Training-workshop on the identification of predatory & pest mites, Municipal Lednicky Hall, La Trinidad, Benguet March 16, 2005

Coconut and Lanzones Scale Insect Management, HR Training Center, City Hall Compd., San Pablo City June 9, 2014

Inter-Institutional Forum on Pesticide Use on Sampaguita, National Crop Protection Center, College of Agriculture, UP Los Baños, College, Laguna June 9, 2004

FFS Pest Management on sampaguita, Phase I Calamba City, Laguna, Sta Cruz, Laguna & Lucena City February

FFS Pest Management on sampaguita, Phase II Calamba City, Laguna, Sta Cruz, Laguna & Lucena City February

Technical briefing of Northern Food Corporation project management officers & selected farmer leader, Sarrat, Ilocos Norte December 19 2004

Teknolohiya matapos maani, pagbebenta at pag-iwas/ pagsugpo ng peste at sakit (para sa mga semi-temp, Benito Pilar Social Hall, Municipal Hall, Lucban, Quezon August 22, 2002

Integrated Pest Management (IPM) for Agroforest farms, Institute of Agroforestry Conf. Rm., Tamesis Hall, CFNR, UPLB, College, Laguna April 24, 2002

International Workshop on Appropriate Use of Bio-Fertilizers and Bio-pesticides for Small Scale Farm, 2007 N 22-

35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City 2004 Mr 16-19

## **Researches**

**Complete**

Life history and functional response of *Proctolaelaps yinchuanensis*

Laboratory evaluation of *Orius tantillus* (Mots.) for the control of *Dichromothrips corbetti* (Priesner)

Activity 3.5.2. Biocontrol of spider mite pests of *Jatropha curcas* L

- Narrowing knowledge gaps on crop management practices among farmers in peri-urban sampaguita production through training & information support
- Farmer's evaluation of village level production & utilization of *Spodoptera litura* Nuclear Polyhedrosis Virus (NPV) & the predatory anthocorid bug, *Orius tantillus* (Motsch) for the management of major lepidopterous pests of corn
- Survey, biology & mass rearing of phytoseiid predators of spider mite pests of premium ornamentals

Development of pest management schemes for peri-urban sampaguita production

Action Research: Training on farm-level collection, preparation, preservation & utilization of nuclear polyhedrosis virus of *Spodoptera litura* (SINPV)

Farm-level production & utilization of *Spodoptera litura* Nuclear Polyhedrosis. Virus

Floral damage of Fruit & shoot borer, *Leucinodes orbonalis* Guenee (Pyralidae, Lepidoptera)

- Evaluation of *Orius tantillus* for the control of various species of thrips infesting orchids
- Activity 3.5.1. Survey, biology & potential biocontrol agents of mite pests of *Jatropha curcas* L.

Insect vectors: Survey, biology & potential bio-control agents

- Field & laboratory observation on the biology of the Black armyworm, *Spodoptera exempta* (Walker) (Noctuidae, Lepidoptera)

Field evaluation of *Orius tantillus* (Mots.) for the control of Asian corn Borer

Comparative development of *Amblyseius /enis* on two preys and functional response to *Tetranychus urticae*

Mass rearing of *Tetranychus truncatus* Ehara on water hyacinth

- Life history & morphology of the Ficus-feeding bombycid, *Trilocho varians* (Walker) (Lepidoptera: Bombycidae), in the Philippines with notes on its host range & damage on *Ficus nitida*

Mass colonization & evaluation of anthocorid bug, *Orius tantillus* against Asian corn borer

### **On-going**

Survey, biology and mass rearing of common phytoseiid predators

Development of IPM schemes for peri-urban sampaguita production

Biological Control of the broad mite, *Polyphagotarsonemus latus* (Banks) by the predatory phytoseiid mite *Paraphytoseius orientalis* (Narayanan et al.)

Mass rearing of red spider mites, flour mite, a species of phytoseiid predator & the predatory earwig *Chelisoche morio*

Biological control of water hyacinth

### **Papers Presented**

Navasero MV, Cayabyab BF and Gonzales PG (2014). Situation Analysis and Development of Methods of Damage and Insecticide Bio-efficacy Assessments for the Coconut Scale Insect, *Aspidiotus* sp. (Diaspididae, Hemiptera), 45th PMCP Anniversary and Annual Scientific Conference.

Navasero MV and Cayabyab BF (2014). The parasitoid *Comperiella*: Nature's healing agent against *cocolisap*. In: Forum on Cocolisap: Facing the Management Challenges of an Outbreak, Plant Pathology Auditorium, Biological Science Building, UP Los Baños, College, Laguna.

Navasero MV and Cayabyab BF (2014). Updates on Coconut Scale Insect Infestation. In: Symposium on Crop Protection Updates, Phela Convention Center, General Santos City.

Navasero MV and Cayabyab BF (2014). The coconut scale insect control on a cross-road. In: Edgar B. Eugenio's lecture on "How to Raise Coccinellids & Other Parasitoids to Combat Cocolisap & other Coconut Pests", UP Open University Los Baños, Laguna.

Navasero MV (2013). Biology of *Trilocha varians* (Walker) (Bombycidae, Lepidoptera), 44th PMCP Anniversary & Annual Scientific Conference. Hotel Centro, Puerto Princesa City, Palawan.

Navasero MV (2012). Field & Laboratory Observations on the Biology of the Black Armyworm, *Spodoptera exempta* (Walker) (Noctuidae, Lepidoptera) in the Philippines, 43rd PMCP Anniversary & Annual Scientific Conference. Mallberry Hotel, Cagayan de Oro City.

Navasero MV (2009). Village-level Utilization of *Spodoptera* & *Helicoverpa* Nuclear Polyhedrosis Viruses & the Flower bug, *Orius tantillus* (Motsch.) for the Management of Major Lepidopterous Pests of Corn, 40th PMCP Anniversary & Annual Scientific Conference. Hotel Supreme Convention Plaza, Baguio City.

Navasero MV (2009). Mass Production of the Black Earwig, *Chelisoche morio* (Chelisocheidae, Dermaptera), 40th PMCP Anniversary & Annual Scientific Conference. Hotel Supreme Convention Plaza, Baguio City.

Navasero MV (2008). Development, prey consumption & mass production of *Chelisoche morio* Fabr. (Chelisocheidae, Dermaptera), 39th PMCP Anniversary & Annual Scientific Conference. Asturias Hotel, Puerto Princesa City, Palawan.

Navasero MV & C&ano RN (2008). Injurious arthropods associated with Tubang-bakod, *Jatropha curcas* L. (Euphorbiaceae), 39th PMCP Anniversary & Annual Scientific Conference. Asturias Hotel, Puerto Princesa City, Palawan.

Navasero, M.V. (2007 N22). Technical Briefing on Biological Control Researches on Nuclear Polyhedrosis Viruses (NPVs), Predatory Mites, Earwigs, *Orius* and Other Natural Enemies, International Workshop on Appropriate Use of Bio-Fertilizers and Bio-pesticides for Small Scale Farmers in the Asia and the Pacific Region, Sponsored by PCARRD and Food and Fertilizer Technology Center (FFTC) of Taiwan, National Crop Protection Center, UPLB-CA.

(2006). Development of *Chelisoche morio* (Dermaptera- Chelisocheidae) as influenced by the rearing medium, 37th Pest Management Council of the Philippines Convention. Gr& Regal Hotel Davao City.

Navasero MV (2005). Community-based production of Nuclear polyhedrosis virus (NPV) for management of fruitworm & cutworm. Integrated production & pest management in processing tomato: Issues & Prospects, Palazzo de Laoag, Laoag, Ilocos Norte.

Navasero MV & Boncodin RM (2005). Assessing impact of IPM on peri-urban sampaguita livelihood system. CIP-UPWARD Workshop on "Participation & Change: Enhancing Research for Impact", Army Hotel, Hanoi, Vietnam.

(2004 Mr 16-19). Succession and population dynamics of arthropods pests of eggplant in two different cropping systems, 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

(2004 Mr 16-19). Sampaguita webworm, *Nausinoe geometralis* (Lepidoptera, pyralidae), a new pest record for the Philippines with notes on its biology, 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

Navasero MV (2004). Pests of Sampaguita, 35th Pest Management Council of the Philippines Convention. Amigo Terrace Hotel Iloilo City.

Navasero MV, de Guzman CC, Boncodin RM & Campilan D (2004). Sampaguita webworm, *Nausinoe geometralis* (Lepidoptera: Pyralidae), a new pest record for the Philippines with notes on its biology, 35th Pest Management Council of the Philippines Convention. Amigo Terrace Hotel Iloilo City.

Navasero MV (2004). Crop protection practices & perceptions on pests of sampaguita farmers in San Miguel, Bulacan., 35th Pest Management Council of the Philippines Convention. Amigo Terrace Hotel Iloilo City.

Navasero MV & Daquioag VR (2004). Insect pests & diseases of sampaguita. Inter-Institutional Forum on Pesticide Use on Sampaguita, National Crop Protection Center, College of Agriculture, UP Los Baños, College, Laguna.

Navasero MV (2004). Crop protection practices & perceptions on pests of sampaguita farmers in San Miguel, Bulacan, Inter-Institutional Forum on Pesticide Use on Sampaguita. National Crop Protection Center, College of Agriculture, UP Los Baños, College, Laguna.

Morallo-Rejesus B & Navasero MV (2003). Field evaluation of the predatory bug, *Orius tantillus* (Mots) (Anthocoridae:Hemiptera) for the control of the Asian corn borer, *Ostrinia furnacalis* (Guenee), 34th Pest Management Council of the Philippines Convention. Cebu Business Hotel, Cebu City.

Hirao GA, Navasero MV & Santiago DR (2003). First observations on the predatory behavior of *Proctolaelaps yinchuanensis* Xue,Sui &Yi (Ascidae,Acarina), 34th Pest Management Council of the Philippines Convention. Cebu Business Hotel, Cebu City.

## Publications

- 2014 Almarinez, BM, Amalin DM, Carandang JSR VI and Navasero MV Short Comm. First Philippine record of the parasitoid, *Comperiella* sp.(Hymenoptera:Encyrtidae): a potential biocontrol agent against *Aspidiotus rigidus* (Hemiptera:Diaspididae). J. Appl. Entomol, 2014.
- 2014 Corpuz-Raros, LA Survey of host plants & predatory mites associated with the Broad Mite, *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae) & other Acari in selected provinces in Luzon & Palawan Isl&s, Philippines. Philippine Entomologists, 2014.
- 2014 Navasero, MV Biology of *Trilocha varians* (Walker) (Lepidoptera:Bombycidae) on *Ficus benjamina* L. in the Philippines. Philippine Entomologists, 2014.
- 2014 Calumpang SMF, Navasero MV and Burgonio GAS Repellency of volatile organic chemicals of kakawate, *Gliricidia sepium* (Jacq) Walp., to Rice Green Leaf Hopper, *Nephotettix virescens* (Distant) (Hemiptera: Cicadellidae). The Philippine Agricultural Scientist, 2014.
- 2013 Mario V. Navasero, Marcela M. Navasero, Maureen Ceres dL. de Roxas and Susan May F. Calumpang OCCURRENCE OF THE MORACEAE-FEEDING BOMBYCID, *Trilocha varians* (Walker) (BOMBYCIDAE, LEPIDOPTERA) AS PEST OF JACKFRUIT AND SOME

- ORNAMENTAL SPECIES OF FICUS IN THE PHILIPPINES. *Journal of ISSAAS*, 2013, 19(2):41-48.
- 2013 Calumpang SMF, Burgonio GAS and Navasero MV Behavioral and olfactory responses of Rice Green Leaf Hopper, *Nephotettix virescens* (Distant) to volatile cues from tagbak (*Alpinia elegans* (C. Presl) K. Schum). *Philippine Journal of Science*, 2013.
- 2013 MV Navasero Mass rearing of the broad mite, *Polyphagotarsonemus latus* (Banks) (Tarsonemidae, Acari), on alugbati, *Basella rubra* L. (Basellaceae), with notes on feeding damage, development & population growth. *Philippine Entomologists*, 2013.
- 2013 MV Navasero, MCdL de Roxas Occurrence of the moraceae-feeding bombycid, *Triliocha varians* (Walker) (Bombycidae, Lepidoptera) as pest of jackfruit & some ornamental species of *Ficus* in the Philippines. *J. ISSAAS*, 2013.
- 2013 Calumpang SMF, Burgonio GAS, Navasero MV and Magsino GL Tagbak repels Green leafhopper in rice.. UPLB-NRCP, 2013.
- 2013 Calumpang SMF, Burgonio GAS, Navasero MV and Magsino GL Tagbak bilang panaboy sa Berdeng ngusong kabayo. UPLB-NRCP, 2013.
- 2011 Navasero MV & C&ano RN Comparative development of *Spodoptera exempta* (Walker) (Noctuidae, Lepidoptera) on *Zea mays* L. & *Panicum maximum* Jacq. in the Philippines with notes on its host range, larval feeding & post emergence behavior of adults. *The Philippine Entomologists*, 2011.
- 2010 Navasero MV Biology of the black earwig *Chelisoches morio* (Fabricius) (Chelisochidae, Dermaptera). *The Philippine Entomologists*, 2010.
- 2006 Navasero MV, Bacud ST & Gallentes J Pamamahala ng Mga Peste ng Sampaguit. CIP-UPWARD, 2006.
- 2005 Navasero, M.V., Navasero, M.M. Pang-komunidad na Pag-aalaga ng Mamumulpol, Pagpaparami, Pag-iimbak, at Paggamit ng Bayrus. NPV-NCP-C-OVCRE, 2005:16p..
- 2005 Corpuz-Raros LA Functional response of three predatory phytoseiid mites (Phytoseiidae, Acari) to two-spotted mite, *Tetranychus urticae* Koch (Tetranychidae, Acari). *The Philippine Entomologist*, 2005.
- 2005 Corpuz-Raros LA Mass rearing technique for *Proprioseiopsis lenis* (Corpuz & Rimando) & *Neoseiulus calurai* (Corpuz & Rimando) (Phytoseiidae, Acari) with notes on the biology of *P. lenis*. *The Philippine Entomologists*, 2005.
- 2005 Corpuz-Raros LA, Garcia RC New host & geographic records of Philippine plant mites (Acari), mainly on ornamental plants: I. Gamasida & Actinedida. *Asia Life Science*, 2005.
- 2005 Corpuz-Raros LA, Garcia RC and Bravo C New host & geographic records of Philippine plant mites (Acari), mainly on ornamental plants. II. Acaridida & Oribatida. *Asia Life Science*, 2005.
- 2005 Corpuz-Raros LA, Garcia RC & Navasero MV Mass rearing of the two-spotted mite, *Tetranychus urticae* Koch, on water hyacinth. *The Philippine Entomologist*, 2005.
- 2005 Navasero MV Pang-komunidad na Pag-aalaga ng Mamumulpol, Pagpaparami, Pag-iimbak, at Paggamit ng Bayrus-NPV. UPLB-OVCRE, 2005.
- 2005 Navasero MV Pangkomunidad na pag-aalaga, pagpaparami at paggamit ng Orius.. UPLB-NRCP, 2005.
- 2004 Corpuz-Raros LA, Garcia RC & Navasero MV Mass rearing of *Tetranychus truncatus*

- Ehara (Tetranychidae: Acarina) on water hyacinth, *Eichhornia crassipes* L. *The Philippine Entomologist*, 2004.
- 2003 Research Note: Refinement of the laboratory mass production technique for *Orius tantillus* Motsch (Anthocoridae, Lepidoptera). *Philippine Entomologists*, 2003, 17(1):176-179.
- 2003 Floral damage of fruit and shoot orer, *Leucinodes orbonalis* Guenee (Pyrilidae, Lepidoptera) on eggplant. *Philippine Entomologists*, 2003, 17(1):170-175.
- 2003 Farm-level production and utilization of *Spodoptera litura* Nuclear Polyhedrosis Virus. *Philippine Entomologists*, 2003, 17(1):180-183.
- 2003 Navasero MV Floral damage of Fruit & shoot borer, *Leucinodes orbonalis* Guenee (Pyrilidae, Lepidoptera) on eggplant. *Philippine Entomologists*, 2003.
- 2003 Rejesus BM & Navasero MV Research Note: Refinement of the laboratory mass production technique for *Orius tantillus* (Motsch.) (Anthocoridae, Lepidoptera). *Philippine Entomologists*, 2003.
- 2003 Navasero MV Short Communication: Potential of farm-level production & utilization of *Spodoptera litura* Nucleopolyhedrosis Virus. *Philippine Entomologists*, 2003.
- 2002 Hirao GA & Navasero MV Mass rearing of *Dichromothrips corbetti* (Priesner) (Thysanoptera: Thripidae) on Vanda flowers. *Philippine Entomologists*, 2002.
- 2001 Hirao GA, Navasero MV & Santiago DR Some factors affecting mass rearing of the Vanda thrips, *Dichromothrips corbetti* (Priesner) (Thysanoptera: Thripidae). *The Philippine Entomologist*, 2001.
- 1998 Calilung VJ, Arcelo MM, Calilung MVJ & Barile GE Development of a mass rearing technique for the flower bug, *Orius tantillus* (Motschulsky) (Anthocoridae, Hemiptera). *Philippine Agriculturist*, 1998.
- 1997 Calilung VJ Investigation of some factors affecting mass production of *Orius tantillus* (Motschulsky) (Anthocoridae, Hemiptera) and its functional responses to two factitious preys, *Suidasia pontifica* Oudemans (Acarina: Suidasiidae) & *Corcyra cephalonica* Staiton (Lepidoptera: Pyralidae). *Philippine Agriculturist*, 1997.

**Name** Mario V. Navasero  
**Place of Birth** Los Banos, Laguna  
**Date of Birth** January 20, 1960  
**Gender** Male  
**Civil Status** Married  
**Home Address** 330 Mayondon, Los Baños, Laguna 4030

**Organizational Affiliations**

University Researcher, National Crop Protection Center, University of the Philippines Los Baños- College of Agriculture (UPLB-CA)

Scientist I, National Crop, Protection Center-Crop Protection Cluster (NCPC-CPC), University of the Philippines Los Baños- College of Agriculture (UPLB-CA)

**Education**

M.S. in Entomology, University of the Philippines at Los Baños, College, Laguna 1994-1998

BSA (Entomology), University of the Philippines at Los Baños, College, Laguna 1976-1984

**Fields of Specialization**

Biological Control

Entomology

Insect Systematics

Pest Management

Insect Taxonomy

Pesticide Management

**Employment**

Research Assistant, Museum of Natural History, UPLB, 1987 Feb.-1988 Sept.

Research Assistant, National Crop Protection Center, College of Agriculture, UPLB, 1988 Oct.-1997 July

Research Assistant, Department of Entomology, College of Agriculture, UPLB, 1985 June.-1987 Jan.

Research Aide, Dept. of Entomology, CA, UPLB, 1983 Jan.-1983 Dec.

Scientist I, National Crop, Protection Center-Crop Protection Cluster, April 2013-present

University Researcher, National Crop, Protection Center-Crop Protection Cluster, Aug 1997-Mar 2013

Research Assistant, National Crop, Protection Center-Crop Protection Cluster, Aug 1984-July 1997

**Association Membership**

Regular Member, National Research Council of the Philippines (NRCP)

Member, Gamma Sigma Delta Honor Society for Agriculture and Related Sciences

Regular Member, Philippine Association of Entomologists

Member, UP Entomological Society  
Life Member, Philippine Association of Entomologists (PAE)  
Member, Philippine Association of Career Scientist (PACS)  
Member, Philippine Association of Agriculturists  
Member, International Society for Southeast Asian Agricultural Sciences (ISSAAS)  
Member, University of the Philippines Research, Extension and Professional Staff Association

### **Honors / Awards**

Pest Management Award in Research, 40th PMCP Anniversary and Annual Scientific Conference 2009 May 5-8

Best Poster Award/Potential of Farm-level utilization of *Spodoptera litura* Nuc. Polyhedrosis Virus, 34th PMCP Anniversary and Annual Scientific Conference 2003 May 6-9

The BAR Director's Award for R&D, Bureau of Soils 2002 Nov. 28

UP President's International Publication Award 2001, University of the Philippines, Diliman, Quezon City 2002 March 13

Best Junior Researcher 2000, 24th Anniversary Celebration, NCPD, UPLB, College, Laguna 2000 May 22

Scholarship Grant, Marsman Foundation 1994-1996

Haribon Field Fellowship Grant, 1989

Philippine Association of Entomologists' Scholarship, Bayer Philippines 1981-1982

Professional Government Career Service Eligible, 1987

Licensed Agriculturist (License No. 0002091), Professional Regulation Commission

L.B. Uichanco Memorial Award as Outstanding Entomologist, Philippine Association of Entomologists during the 45th PMCP Anniversary and Annual Scientific Conference May 6-9, 2014

Scientist I, Department of Science and Technology and the Civil Service Commission March 13, 2013

International Publication Award for the paper entitled "Calumpang SMF, Burgonio GAS, The Philippine Agricultural Scientist 2014

International Publication Award for the paper entitled "Calumpang SMF, Burgonio GAS, Philippine Journal of Science 2014

International Publication Award for the paper entitled "Navasero MV, Navasero MM, de Roxas MC dL a, Philippines Journal 2014

Mass-rearing of Broad mite, *Polyphagotarsonemus latus* (Banks) (Tarsonemidae, Acari), on Alugbati, Ba, Philippine Entomologist 2013

International Publication Award for the paper entitled "Behavioral and Olfactory Responses of Rice, Philippine Journal of Science 2013

International Publication Award for the paper entitled "Occurrence of the Moraceae-feeding bombyci, Philippines Journal 2013

International Publication Award for the paper entitled "Mass-rearing of Broad mite, Polyphagotarso, Philippine Entomologist 2013

International Publication Award for the paper entitled "Influence of intercropping vegetable crops, The Philippine Agricultural Scientist 2013

International Publication Award for the paper entitled "Behavioral response of asian corn borer, O, The Philippine Agricultural Scientist 2013

International Publication Award for the paper entitled "The genus Acizzia Heslop-Harrison in the P, The Philippine Entomologist 2013

International Publication Award for the paper entitled "Comparative development of Spodoptera exem, The Philippine Entomologists 2013

International Publication Award for the paper entitled "Biology of the black earwig, Chelisoches m, The Philippine Entomologist 2013

International Publication Award for the paper entitled "A new Paurocephaline genus and species (He, The Philippine Entomologist 2010

International Publication Award for the paper entitled "Effectiveness of thiametoxam gel baits aga, The Philippine Entomologist 2010

## **Trainings**

Training on Research Methodologies, Monitoring and Evaluation, The Commission on Higher Education-University of the Philippines Los Baños Zonal Research Center fo June 23 2005

Workshop on "Facing the Media: The Art of Being Interviewed", ISAAA and SEARCA 2014

Legal Biosafety Training Course, Program for Biosafety Systems (PBS). InterContinental Hotel, Makati City July 21 2014

Program for Biosafety Systems SEAsia and Michigan State University Training Course on Insect and Wee, UP Los Baños, College, Laguna Feb 19 2007

40th PMCP Anniversary and Annual Scientific Conference., Hotel Supreme Convention Plaza, Baguio City 2009 My 5-8

Refresher Course on Pest and Disease Diagnosis and Management in Rice, Corn, Vegetables and Mango, NCPC, College of Agriculture 2009 June 1-4

Refresher Course on Pest and Disease Diagnosis and Management in Rice, Corn, Vegetables and Mango, NCPC, College of Agriculture 2009 April 13-17

Sampaguita Seminar, Demo Farm, Provincial Agriculturists Office, Brgy. Callos, Sta. Cruz, Laguna 2008 Sept. 3

39th PMCP Anniversary and Annual Scientific Conference, Puerto Princesa, Palawan 2008 May 2-5

Seminar Workshop on Village-level Bio-control Mass Production Laboratories (FFS-Bio-Lab Project), Provincial Training Center, Bacolod, Negros Occidental 2007 Nov. 3

37th PMCP Anniversary and Annual Scientific Conference, Grand Regal Hotel, Davao City 2006 May 2-5

36th PMCP Anniversary and Annual Scientific Conference, PhilRice/CLSU, Science City of Munoz, Nueva Ecija 2005 May 3-6

Training Workshop on the Identification of Predatory and Mite Pests, Municipal Lednicky Hall, La Trinidad, Benguet 2005 Mar. 16

Integrated Production and Pest Management in Processing Tomato: Issues and Prospects., Palazzo de Laoag Hotel, Laoag City, Ilocos Norte 2005 July 19-22

CIP-UPWARD Workshop on Participation and Change: Enhancing Research for Impact, Army Hotel, Hanoi, Vietnam 2005 Jan. 19-21

Brontispa Seminar-Workshop and Exposure Tour, ITCAF, Diliman, Quezon City and Villa Dominga Resort, Indang, Cavite 2005 Aug. 24-25

Sampaguita Production Seminar, Agro-Industrial Trade Fair and Exhibits, Lucena City 2005 Aug. 15-20

26th Annual Scientific Meeting, National Academy of Science and Technology, Manila Hotel, Rizal Park, Manila 2004 July 14-15

Inter-Institutional Forum on Pesticide Use on Sampaguita, NCPC, CA-UPLB, College, Laguna. 2004 June 9

Eggplant IPM Seminar-Workshop, Lisland Resort Hotel, Urdaneta City and Brgy. Bantug, Asingan, Pangasinan 2004 April 20-21

Sampaguita Farmers' Forum, Banlic, Calamba City 2003 July 18

Comprehensive Educ. Prog. for Integrated and Sustainable Dev. of Tagbanua Communities in Calamian., Brgy. Bulalacao, Corion, Palawan 2003 Aug. 27-28

1st Visayas and Mindanao Vegetable Congress: IPM on Vegetables, Cebu Business Hotel, Cebu City 2001 Nov. 28-29

31st PMCP Anniversary and Annual Scientific Conference, Hotel Supreme, Baguio City 2000 May 3-6

Workshop on Integrated Implementation of High Impact Project on Eggplant and Tomato, IPB, UPLB, College, Laguna 2000 May 16

Training-Workshop for FPA Accredited Researchers, Continuing Educ. Center, UPLB, College, Laguna 2000 March 28-29

Workshop on R,D and E Crop Protection Agenda, NCPC, CA, UPLB, College, Laguna 2000 April 3-4

30th PMCP Anniversary and Annual Scientific Conference, PRRI, Munoz, Nueva Ecija 1999 May 4-6

30th PMCP Anniversary and Annual Scientific Conference, PRRI, Munoz, Nueva Ecija 1999 May 4-6

Forum sa Okra: Pagkilala at pagkontrol ng Peste at Sakit ng Okra., PRTI and Dept. of Horticulture, UPLB, College, Laguna 1998 O 16

20th Annual Scientific Meeting National Academy of Science and Technology, Westin Philippine Plaza, Pasay City 1998 July 7-8

Gender Issues, NCPC, CA, UPLB, College, Laguna 1998 Dec. 7

Training-Workshop on Identification of Quarantine Pests for Pest Risk Assessment Implementation, NCPC, College of Agriculture, UPLB, College, Laguna 1998 Feb. 18-25

Training-Workshop on Enhancing R&D Capabilities on Phytophagous Mites in the Cordillera, NCPC, College of Agriculture, UPLB, College, Laguna 1997 Oct. 26-29

19th Annual Scientific Meeting National Academy of Science and Technology,, Westin Philippine Plaza, Pasay City 1997 July 9-10

24th PMCP Anniversary and Annual Scientific Conference, Cebu City 1993 May 4-7

Nat. Conference and Workshop on Integrated Pest management in Rice, Corn and Selected Major Crops, NCPC, CA, UPLB, College, Laguna 1990 My 1-3

## Researches

### Completed

Population dynamics of arthropods associated with eggplant

Biological and cultural control of fruit worm, thrips, nematodes and soil-borne diseases on tomato. (DA-BAR. Study Leader 1999-2001)

Further studies on the jumping plant-lice of Mt. Makiling with emphasis on the immature stages (1999-2001)

National biodiversity conservation priority-setting

Integrated biological control of major pests and diseases of cabbage (1996-1999)

Taxonomy of Philippine Jumping plant-lice (Psylloidea, Homoptera) (Masteral thesis. 1994-1998)

Mass production of Helicoverpa and Spodoptera Nuclear Polyhedrosis Viruses

Biological studies and cultural control of the okra pod borer, *Earias vitella* Fabricius (Noctuidae, Lepidoptera)

Damage Assessment of Bean Leaf Folder, *Lamprosema indicata* Fabricius on Mungbean (1996-1997)

Field efficacy evaluation of four strains of Nuclear Polyhedrosis Virus against *Helicoverpa armigera* Hubner on tomato,(Project Leader,1991-1992)

Biology and Chemical Control of the Eggplant Fruit and Shoot borer, *Leucinodes orbonalis* Guenee (Pyralidae, Lepidoptera) in the Philippines(1982-1984)

Occurrence, rapid appraisal and mapping of *Comperiella* sp. (Hymenoptera: Chalcidoidea: Encyrtidae) in CSI-Infested Areas of CALABARZON

Field Observations on the biology of Coconut Scale Insect, *Aspidiotus rigidus* Reyne (Diaspididae, Hemiptera)

Field Evaluation of the Bioefficacy and Methods of Application for Some Neonicotinoids Insecticides Against the Coconut Scale Insect, *Aspidiotus rigidus* Reyne (Diaspididae, Hemiptera)

Life history and morphology of the Ficus-feeding bombycid, *Trilocha varians* (Walker) (Lepidoptera: Bombycidae), in the Philippines with notes on its host range and damage to *Ficus nitida*

Field and laboratory observation on the biology of the black armyworm, *Spodoptera exempta* (Walker) (Noctuidae, Lepidoptera)

Biological and cultural control of major insect pests of eggplant (1999-2001)

Population dynamics of arthropods associated with eggplant (2001-2003)

Floral damage of Fruit and shoot borer, *Leucinodes orbonalis* Guenee (Pyralidae, Lepidoptera)

Crop protection practices and perceptions on pests of sampaguita farmers in San Miguel, Bulacan, a survey

Survey of arthropods associated with sampaguita and biological studies on major pest species

Taxonomy of Philippine jumping plant lice

Composition and abundance of arthropods in Bt and non-Bt eggplant

Species composition, population dynamics and biology of arthropods associated with Tubang bakod, *Jatropha curcas* (Linn.)

Farmers' evaluation of village-level production and utilization of Nuclear Polyhedrosis Viruses (NPVs) and the Predatory anthocorid bug, *Orius tantillus* (Motsch.) for the management of major lepidopterous pests of corn

Narrowing knowledge gap on crop management practices in peri-urban sampaguita production through training and information support (Study Leader, 2005-2007)

Evaluation of the earwig, *Euborellia annulata* (Fabricius) (Anisolabididae, Dermaptera) for the control of eggplant borer, *Leucinodes orbonalis* (Guenee) (Pyralidae, Lepidoptera) (Study Leader, 2005-2008)

Farm-level production and utilization of *Spodoptera litura* Nuclear Polyhedrosis

Action Research: Training on farm-level collection, preparation, preservation and utilization of Nuclear Polyhedrosis Virus of *Spodoptera litura* (SINPV)

Pesticide management of major insect pests and foliage diseases of tomato. (DA-BAR) (1999-2004)

Taxonomy of Philippine Jumping Plant-Lice (Hemiptera: Psylloidea) with Emphasis on the Immature Stages

Survey of arthropod of pests of sampaguita (2004)

Development of pest management schemes for sampaguita (2003-2005)

**On-going**

Survey, biology and mass rearing of common phytoseiid predators

Insect pest management in eggplant

Development of IPM schemes for peri urban sampaguita production

#### **Papers Presented**

Navasero, M.M., Hirao, G.A., Santiago, D.R. (May 6-9, 2003). First Observations on the Predatory Behavior of *Proctolaelaps yinchuanensis* Xue, Sui & Yi (Ascidae, Acarina), 34th PMCP Anniversary and Annual Scientific Conference, Cebu Business Hotel, Cebu City.

Recuenco-Adorada, J.D., Ballentes, M. (May 2-5, 2006). Hispine beetles of coconut in the Philippines, 37th PMCP Anniversary and Annual Scientific Conference, Grand Regal Hotel, Davao City.

Cayabyab BF, Navasero MM and Gonzales PG (2014). Situation Analysis and Development of Methods of Damage and Insecticide Bio-efficacy Assessments for the Coconut Scale Insect, *Aspidiotus* sp. (Diaspididae, Hemiptera), 45th PMCP Anniversary and Annual Scientific Conference.

Candano RN, Manipol JP, Hautea DM, Hautea RA, Mostoles MDJ and Bravo CR (2013). A comparison of canopy-dwelling non-target arthropod communities in open pollinated transgenic Bt and non-Bt eggplant in four multi-location trial sites in the Philippines, 44th PMCP Anniversary and Annual Scientific Conference. Hotel Centro, Puerto Princesa City, Palawan.

Navasero MM (2013). Biology of *Trilocho varians* (Walker) (Bombycidae, Lepidoptera), 44th PMCP Anniversary and Annual Scientific Conference. Hotel Centro, Puerto Princesa City, Palawan.

Navasero MM (2012). Field and laboratory observations on the biology of the Black Armyworm, *Spodoptera exempta* (Walker) (Noctuidae, Lepidoptera) in the Philippines, 43rd PMCP Anniversary and Annual Scientific Conference. Mallberry Hotel, Cagayan de Oro City.

Adorada JR, Manipol JP, Narciso JO and Hautea DM (2010). Survey of arthropods associated with eggplant and farmers' crop protection practices in some of the major eggplant growing areas in Luzon, 41st PMCP Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Davao City.

Adorada, J.R., Manipol, J.P., Narciso, J.O., Hautea, D.M. (2009 My 5-8). Survey of Arthropods Associated with Eggplant and Farmers' Crop Protection Practices in Some of the Major Eggplant Growing Areas in Luzon, 40th PMCP Anniversary and Annual Scientific Conference, Hotel Supreme Convention Plaza, Baguio City.

Navasero, M.M. (2009 My 5-8). Village-level Utilization of *Spodoptera* and *Helicoverpa* Nuclear Polyhedrosis Viruses and the Flower bug, *Orius tantillus* (Motsch.) for the Management of Major Lepidopterous Pests of Corn, 40th PMCP Anniversary and Annual Scientific Conference, Hotel Supreme Convention Plaza, Baguio City.

Navasero, M.M. (2009 My 5-8). Mass Production of the Black Earwig, *Chelisoches morio* (Chelisocheidae, Dermaptera), 40th PMCP Anniversary and Annual Scientific Conference, Hotel Supreme Convention Plaza, Baguio City.

JP Manipol, JO Narciso and DM Hautea, RA Hautea and VM Cruz (2009 My 5-8). Occurrence and Abundance of Non-target Arthropods in Bt and non-Bt lines of Eggplant, 40th PMCP Anniversary and Annual Scientific Conference, Hotel Supreme Convention Plaza, Baguio City.

Navasero, M.M. (2008 S 3). Management of Pests of Sampaguita, Sampaguita Seminar, Demo Farm, Provincial Agriculturists Office, Brgy. Callos, Sta. Cruz, Laguna.

(2008 N 26). Brontispa Detection and Control, Planning Workshop and Consultative Meeting on the Implementing Rules and Regulations of Executive Order No. 664 (Brontispa Emergency Control Measures, Kamayan sa Palaisdaan, Brgy. Dapdap, Lanzonesan, Tayabas, Quezon.

Navasero, M.M (2008 My 6-9). Development, prey consumption and mass production of *Chelisoches morio* Fabr. (Chelisocheidae, Dermaptera), 39th PMCP Anniversary and Annual Scientific Conference, Asturias Hotel, Puerto Princesa City, Palawan.

Navasero, M.M., Candano, R.N. (2008 May 6-9). Possible Natural Control of the Invasive Coconut Hispine beetle, *Brontispa longissima* (Gestro) (Coleoptera, Chrysomellidae, Hispinae) by its Diverse Indigenous Natural Enemies, 39th PMCP Anniversary and Annual

Scientific Conference, Asturias Hotel, Puerto Princesa City, Palawan.

Navasero, M.M., L Corpuz-Raros, L., Villancio, V.T. (2008 May 6-9). Spider Mites and Broad Mite Occurring on *Jatropha curcas* L. and Their Potential Predatory Mites, 39th PMCP Anniversary and Annual Scientific Conference, Asturias Hotel, Puerto Princesa City, Palawan.

Navasero, M.M. (2008 May 6-9). Rearing Units for the Mass Production of the Black earwig, *Chelisoches morio* Fabr. (Chelisoichidae, Dermaptera), 39th PMCP Anniversary and Annual Scientific Conference, Asturias Hotel, Puerto Princesa City, Palawan.

Mendoza, N.D., Dela Cruz, R.G. (2008 May 6-8). Evaluation of Nuclear Polyhedrosis Viruses for the Management of Fruitworm, *Helicoverpa* sp. and Cutworm, *Spodoptera litura* L. in Processing Tomato, 39th PMCP Anniversary and Annual Scientific Conference, Asturias Hotel, Puerto Princesa City, Palawan.

Saavedra, N.T., Zipagan, M.B. (2008 May 6-9). The Coconut Leaf Beetle, *Brontispa longissima* (Gestro) (Chrysomellidae, Coleoptera), A Serious Threat to the Philippine Coconut Industry (Plenary paper), 39th PMCP Anniversary and Annual Scientific Conference, Asturias Hotel, Puerto Princesa City, Palawan.

Navasero, M.M. (2007 Nov. 22). Technical Briefing on Biological Control Researches on Nuclear Polyhedrosis Viruses (NPVs), Predatory Mites, Earwigs, Orius and Other Natural Enemies, International Workshop on Appropriate Use of Bio-Fertilizers and Bio-pesticides for Small Scale Farmers in the Asia and the Pacific Region, Sponsored by PCARRD and Food and Fertilizer Technology Center (FFTC) of Taiwan, National Crop Protection Center, UPLB-CA.

Recueno-Adorada, J.D. (2007 July 9-12). Indigenous biological control agents of *Brontispa longissima* (Gestro) in the Philippines, 29th Annual Scientific Meeting National Academy of Science and Technology. Westin Philippine Plaza, Pasay City.

Recueno-Adorada, J.D., Ballentes, M. (2006 May 2-5). Hispine beetles of coconut in the Philippines, 37th PMCP Anniversary and Annual Scientific Conference, Grand Regal Hotel, Davao City.

Navasero, M.M. (2006 May 2-5). Control of *Tetranychus urticae* Koch (Acari: Tetranychidae) on eggplant through on-farm demo-experiment: The case of Calamba City and Balete, Batangas, 37th PMCP Anniversary and Annual Scientific Conference, Grand Regal Hotel, Davao City.

(2005 May 3-6). Critical-window based IPM guide for eggplant, 36th PMCP Anniversary and Annual Scientific Conference, PhilRice/CLSU, Science City of Munoz, Nueva Ecija.

Navasero, M.M. (2005 July 19-22). Community-based Production and Utilization of Nuclear Polyhedrosis Viruses (NPV) of Fruitworm and Cutworm, Integrated Production and Pest Management in Processing Tomato: Issues and Prospects, alazzo de Laoag Hotel, Laoag City, Ilocos Norte.

Navasero, M.M., Boncodin, R.M. (2005 Jan. 19-21). Assessing Impact of IPM on Peri-urban Sampaguita Livelihood System, CIP-UPWARD Workshop on Participation and Change: Enhancing Research for Impact, Army Hotel, Hanoi, Vietnam.

(2004 March 16-19). Succession and population of arthropods pests of eggplant in two different cropping systems., 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

(2004 Mar 16-19). Sampaguita webworm, *Nausinoe geometralis* (Lepidoptera, pyralidae), a new pest record for the Philippine with notes on its biology., 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

(2004 Mar 16-19). Crop protection practices and perceptions on pests of sampaguita farmers in San Miguel, Bulacan., 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

(2004 Mar 16-19). Pests of Sampaguita., 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

(2004 Mar 16-19). Isang Pagsasanay:Pagpaparami ng Bayrus-NPV ng Amumulpol, Spodoptera litura ng mga Magsasakang Kasapi ng Bantog Samahang Nayon Multi-purpose Cooperative, 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

(2004 Mar 16-19). Laboratory rearing technique for Proctolaelaps yinchuanensis Xue, Sui and Yi (Ascidae: Gamasida, Acari) using Suidasia pontifica Oudemans (Suidasaiidae:Gamasida,Acari)., 35th Pest Management Council of the Philippines Convention, Amigo terrace Hotel, Iloilo City.

(2004 Mar 16-19). Common diseases of sampaguita., 35th Pest Management Council of the Philippines Convention, Amigo Terrace Hotel, Iloilo City.

Navasero, M.M. (2004 Mar 16-19). Isang pagsasanay: Pagpaparami ng bayrus-NPV ng mamumulpol, Spodoptera litura (Fabr.) ng mga magsasakang kasapi ng Bantog Samahang Nayon Multi-purpose Cooperative, 35th PMCP Anniversary and Annual Scientific Conference, Amigo Terrace Hotel, Iloilo City.

Bayot, R.G., Gonzales, R.A. Zorilla, R.A., Bacud, S.T. (2004 Mar 16-19). Observation on Bactrocera (Bactrocera) philippinensis Drew and Hancock (Tephritidae, Diptera) and the Possibility of Using Methyl Eugenol for its Detection and Control, 35th PMCP Anniversary and Annual Scientific Conference, Amigo Terrace Hotel, Iloilo City.

Daquioag, V.R., Navasero, M.M. (2004 Mar 16-19). Common Diseases of Sampaguita, 35th PMCP Anniversary and Annual Scientific Conference, Amigo Terrace Hotel, Iloilo City.

Daquioag, V.R. (2004 June 9). Insect Pests and Diseases of Sampaguita, Inter-Institutional Forum on Pesticide Use on Sampaguita, National Crop Protection Center, College of Agriculture, UP Los Baños, College, Laguna.

(2004 June 7-8). Development of IPM schemes for peri urban sampaguita production UPWARD in-house planning workshop, PCARRD, Los Banos Laguna.

(2004 June 09). Crop protection practices and perceptions on pests of sampaguita farmers in San Miguel, Bulacan, Interinstitutional forum on Pesticide use in sampaguita, National Protection Center, UPLB College, Laguna.

(2004 June 09). Pests and Diseases of Sampaguita, Inter-Institutional Forum on Pesticide Use in Sampaguita, National Crop Protection Center, UPLB, College Laguna.

(2004 April 20-21). Population Dynamics of Arthropods Associated with Eggplant, Eggplant IPM Seminar-Workshop, Lisland Resort Hotel, Urdaneta City and Brgy. Bantug, Asingan, Pangasinan.

(2004 April 19-20). Population Dynamics of Arthropods Associated with Eggplant, Eggplant IPM Workshop, Lisland Resort Hotel, Urdaneta, Pangasinan.

(2004). Sustaining the Sampaguita Flower/garland Livelihood System in Peri-urban Metro Manila, 26th Annual Scientific Meeting, National Academy of Science and Technology, Westin Plaza Pasay City.

Gonzales, P.G., Bayot, R.G., Zorilla, R.A. (2003 Oct. 8-9). Biological Control of Tomato Fruitworm, Helicoverpa armigera (Hubner) (Noctuidae, Lepidoptera) using Nuclear

Polyhedrosis Virus and *Trichogramma chilonis*, 15th National Research Symposium Department of Agriculture-Bureau of Research, Diliman, Quezon City.

Gonzales, P.G., Quimio, G.M., Castillo, A.G., Bacud, S.T. (2003 Oct. 8-9). Biological and Cultural Control of Some Major Pests of Eggplant, 15th National Research Symposium Department of Agriculture-Bureau of Research, Diliman, Quezon City.

Navasero, M.M. (2003 Oct. 8-9). Potential of Farm-level Utilization of *Spodoptera litura* Nuclear Polyhedrosis Virus, 15th National Research Symposium Department of Agriculture-Bureau of Research, Diliman, Quezon City.

(2003 Oct. 8-9). Biological and cultural control of some major pests of eggplant, 15th National Research Symposium Department of Agriculture-Bureau of Research, Diliman, Quezon City.

(2003 Oct. 8-9). Potential of Farm-level Utilization of *Spodoptera litura* Nuclear Polyhedrosis Virus, 15th National Research Symposium Department of Agriculture-Bureau of Research, Diliman, Quezon City.

Gonzales, P.G., Bayot, R.G., Zorilla, R.A. (2003 Oct. 8-9). Biological Control of Tomato Fruitworm, *Helicoverpa armigera* (Hubner) (Noctuidae, Lepidoptera) using Nuclear Polyhedrosis Virus and *Trichogramma chilonis*, 15th National Research Symposium, Department of Agriculture-Bureau of Research, Diliman, Quezon City.

Gonzales, P.G., Quimio, G.M., Castillo, A.G., Bacud, S.T. (2003 Oct. 8-9). Biological and Cultural Control of Some Major Pests of Eggplant, 15th National Research Symposium, Department of Agriculture-Bureau of Research, Diliman, Quezon City.

Gonzales, P.G., Bayot R.G., Zorilla, R.A. (2003 May 6-9). Control of Tomato Fruitworm, *Helicoverpa armigera* (Hubner) (Noctuidae, Lepidoptera) Using Nuclear Polyhedrosis Virus and *Trichogramma chilonis*, 34th PMCP Anniversary and Annual Scientific Conference, Cebu Business Hotel, Cebu City.

Navasero, M.M., Morallo-Rejesus, B. (2003 May 6-9). Field evaluation of the predatory bug, *Orius tantillus* (Mots) (Anthocoridae:Hemiptera) for the control of the Asian corn borer, *Ostrinia furnacalis* (Guenee), 34th PMCP Anniversary and Annual Scientific Conference, Cebu Business Hotel, Cebu City.

Navasero, M.M. (2003 May 6-9). Potential of Farm-level utilization of *Spodoptera litura* Nuclear Polyhedrosis Virus, 34th PMCP Anniversary and Annual Scientific Conference. Cebu Business Hotel, Cebu City.

Navasero, M.M., Hirao, G.A., Santiago, D.R. (2003 May 6-9). Mass Rearing of *Dichromothrips corbetti* (Priesner) (Thripidae, Thysanoptera), 34th PMCP Anniversary and Annual Scientific Conference, Cebu Business Hotel, Cebu City.

Navasero, M.M., Bacud, S.T., Hirao, G.A. (2003 May 6-9). Mating Behavior and Cannibalism in *Lema pectoralis* Baly (Chrysomelidae, Coleoptera), 34th PMCP Anniversary and Annual Scientific Conference, Cebu Business Hotel, Cebu City.

Navasero, M.M., Morallo-Rejesus, B., Hirao, G.A. (2003 May 6-9). Mass Rearing of *Orius tantillus* (Mots.) (Anthocoridae, Hemiptera), 34th PMCP Anniversary and Annual Scientific Conference, Cebu Business Hotel, Cebu City.

Navasero, M.M., Raros, L.C., Garcia, R., (2003 May 6-9). Mass Rearing of *Tetranychus truncatus* Ehara (Tetranychidae, Acarina) on Waterlily, 34th PMCP Anniversary and Annual Scientific Conference, Cebu Business Hotel, Cebu City.

Navasero, M.M. (2003 May 6-8). Flower Damage of Fruit and Shoot Borer, *Leucinodes orbonalis* (Guenee) (Pyralidae, Lepidoptera) on Eggplant, 34th PMCP Anniversary and

Annual Scientific Conference. Cebu Business Hotel, Cebu City.

Gonzales, P.G., Quimio, G.M., Castillo, A.G., Bacud, S.T. (2003 July 5-6). Biological and Cultural Control of Some Major Pests of Eggplant, 25th Annual Scientific Meeting National Academy of Science and Technology, Westin Philippine Plaza, Pasay City.

Gonzales, P.G., Bayot, R.G., Zorilla, R.A. (2003 Aug. 15). Biological Control of Tomato Fruitworm, *Helicoverpa armigera* (Hubner) (Noctuidae, Lepidoptera) using Nuclear Polyhedrosis Virus and *Trichogramma chilonis*, 16th STARRDEC Regional Symposium on R&D Highlights.

Calilung, V.J. (2002 Nov. 28). A New Genus and Species of Aphalaridae from Mt. Makiling, Luzon Island, Philippines, Department of Agriculture-Bureau of Agricultural Research (DABAR) Anniversary Celebration, Bureau of Soils and Water Management Convention Hall, Department of Agriculture, Diliman, Quezon City.

Cayabyab, B.F., Gonzales, P.G., (2002 Jan. 14-16). Community Based Production and Utilization of Egg Parasitoids for the Control of Major Lepidopterous Pests of Corn, International Symposium on Biological Control of Arthropods, Honolulu, Hawaii, (VanDriesche, R.D.) (ed.) Unites States Department of Agriculture, Forest Service, Morgantown, WV, FHTET-2003-05.

Ebuenga, M.D., Navasero, M.M. (2000 May 3-6). Life history and damage assessment of bean leaf folder, *Lamprosema indicata* (Fabr.) (Pyralidae, Lepidoptera) on mungbean, 31st PMCP Anniversary and Annual Scientific Conference. Hotel Supreme, Baguio City.

(2000 May 3-6). Density and within plant distribution of *Orius tantillus* (Motschulsky) (Anthocoridae, Hemiptera) and *Ostrinia furnacalis* (Guenee) (Pyralidae, Lepidoptera) in two varieties of corn, 31st PMCP Anniversary and Annual Scientific Conference. Hotel Supreme, Baguio City.

Calilung, V.J. (2000 May 3-6). Feeding Habits of Psylloids (Psylloidea, Homoptera) Associated with *Ficus* sp., 31st PMCP Anniversary and Annual Scientific Conference, Hotel Supreme, Baguio City.

(1999 May 4-6). Taxonomy of Philippine Jumping plant-lice, 30th PMCP Anniversary and Annual Scientific Conference, Philippine Rice Research Institute, Munoz, Nueva Ecija.

Cayabyab, B.F., Bayot, R.G., Gutierrez, E.M., Arapan, R.S., Peñalva, F.P., Desingal, R., Recuenco-Adorada, J.D. (1999 JI 7-8). *Monolepta* sp. (Chrysomelidae, Coleoptera) a New Pest of Corn Seedlings, 21st Annual Scientific Meeting National Academy of Science and Technology, Westin Philippine Plaza, Pasay City.

Ligat, B., Bayot, R.G., Arapan, R.S., Ebuenga, M.D., Peñalva, F.P., Cayabyab, B.F. (1999 JI 7-8). *Hispodonta* sp. (Alticinae, Chrysomelidae) A New Pest Record for Banana, 21st Annual Scientific Meeting National Academy of Science and Technology, Westin Philippine Plaza, Pasay City.

(1998 O 16). Mga Peste ng Okra, Forum sa Okra: Pagkilala at Pagkontrol ng Peste at Sakit ng Okra, Postharvest Research and Training Institute and Department of Horticulture, College, Laguna.

Cayabyab, B.F., Santiago, D.R. (1998 JI 7-8). Insect Fauna of Cabbage in Ilocos Sur and Mt. Province, 20th Annual Scientific Meeting National Academy of Science and Technology, Westin Philippine Plaza, Pasay City.

Ligat, B.S., Cayabyab, B.F., Ebuenga, M.D., Bayot, R.G., Gutierrez, E.M. (1998 JI 7-8). Cabbage Root Maggot, *Delia* sp. (Anthomyiidae, Diptera), A New Pest of cabbage in the Philippines, 20th Annual Scientific Meeting National Academy of Science and Technology, Westin Philippine Plaza, Pasay City.

Santiago, D.R., Castillo, A.G., Cayabyab, B.F. (1998 JI 7-8). Selection of the Entomopathogenic Fungal Isolates for Virulence Toward Migratory Locust, 20th Annual Scientific Meeting National Academy of Science and Technology, Westin Philippine Plaza, Pasay City.

Cayabyab, B.F., Ebuenga, M.D., Bayot, R.G., Arapan, R.S., Gutierrez, E.M., Geli, R.B., Candelaria, E., Peñalva, F.P., Canlas, D. (1998 JI 7-8). El Niño and its effect on Field Population Increase of Migratory Locust, 20th Annual Scientific Meeting of National Academy of Science, Westin Philippine Plaza, Pasay City.

(1998 F 18-25). Families and Genera of Philippine Psylloidea, Identification of Quarantine Pests for Pest Risk Assessment Implementation, National Crop Protection Center, College, Laguna.

Santiago, D.R. (1997 O 8-12). Natural enemies of migratory locust in the Philippines, Trainors' Training on Locust Management in Central Luzon, Zambales, Bataan, Tarlac and Pampanga, Provincial Agriculturist Offices.

Cayabyab, B.F., Farmian, D. Tejada, A.W., Ebuenga, M.D., Bayot, R.G., Santiago, D.R., Candelaria, E. (1997 My 7-10). An Unlabelled Fruitfly Attractant Sold Commercially in San Antonio, Nueva Ecija, 28th PMCP Anniversary and Annual Scientific Conference, Iloilo City.

Cayabyab, B.F., Santiago, D.R., Ebuenga, M.D., Bayot, R.G. (1997 My 7-10). Natural Enemy-hyperparasite Complexes of Paddy Climbing Worm, 28th PMCP Anniversary and Annual Scientific Conference, Iloilo City.

Cayabyab, B.F., Santiago, D.R., Ebuenga, M.D., Gutierrez, E.M., Bayot, R.G. (1997 JI 9-10). The Natural Enemies of Paddy Climbing Worm, *Pseudeletia separata* (Walker) (Lepidoptera:Noctuidae), 19th Annual Scientific Meeting of National Academy of Science and Technology, Westin Philippine Plaza, Pasay City.

Cayabyab, B.F., Santiago, D.R., Garcia, A.U. (1996 My 7-10). Laboratory Test of *Metarhizium flavoviridae* (FI 985) on Migratory Locust and Non-target Organisms, 27th PMCP Anniversary and Annual Scientific Conference, Davao City.

Cayabyab, B.F., Bayot, R.G., Labios, R.V., Tamisin, L.L., Limonisero, R.A., De Chavez, P.M. (1996 My 13-18). Biological Control of *Trianthema portulacastrum* L. A Major Weed of Corn at the Farm Research and Outreach Sites in Tarlac and Pangasinan, Crop Science Society of the Philippines, Davao City.

Santiago, D.R., Sanchez, F.F. (1993 My 4-7). Field Efficacy of Nuclear Polyhedrosis Virus Against *Helicoverpa armigera* (Lepidoptera: Noctuidae) on Tomato, 24st PMCP Anniversary and Annual Scientific Conference, Cebu City.

## Publications

- 2014 Almarinez BJM, Amalin DM, Carandang JSR VI, and Navasero MM Communication: First Philippine record of the parasitoid, *Comperiella* sp. (Hymenoptera: Encyrtidae): a potential biocontrol agent against *Aspidiotus rigidus* (Hemiptera: Diaspididae). J. Appl. Entomol.. doi, 2014.
- 2014 Navasero MM Biology of *Trilocho varians* (Walker) (Lepidoptera: Bombycidae) on *Ficus benjamina* L. Philippines. Philippine Entomologist, 2014.
- 2014 Hautea DM, Quilloy RB, Taylo LD, Narciso JO, Mostoles MDJ, and Hautea RA "Tanglaw" and "Tanyag" - new NSIC-approved UPLB eggplant (*Solanum melongena* L.) hybrids for commercial cultivation in Luzon. Philippine Journal of Crop Science, 2014.
- 2014 Calumpang SMF, Burgonio GAS, Navasero MM Repellency of volatile organic chemicals

- of Kakawate, *Gliricidia sepium* (Jacq.) Walp., to Rice Green Leafhopper, *Nephotettix virescens* (Distant) (Hemiptera: Cicadellidae). *The Philippine Agricultural Scientist*, 2014.
- 2013 Calumpang SMF, Burgonio GAS, Navasero MM Behavioral and olfactory responses of Rice Green Leaf Hopper, *Nephotettix virescens* (Distant) to volatile cues from tagbak (*Alpinia elegans* (C. Presl) K. Schum). *Philippine Journal of Science*, 2013.
- 2013 Navasero MM, de Roxas MC dL and Calumpang SMF Occurrence of the Moraceae-feeding bombycid, *Trilocha varians* (Walker) (Bombycidae, Lepidoptera) as pest of jackfruit and some ornamental species of *Ficus* in the Philippines. *Philippine Journal*, 2013.
- 2013 Navasero MM Mass-rearing of Broad mite, *Polyphagotarsonemus latus* (Banks) (Tarsonemidae, Acari), on Alugbati, *Basella rubra* L. (Basellaceae), with notes on its feeding damage, development and population growth. *Philippine Entomologist*, 2013.
- 2013 Calumpang SMF Influence of intercropping vegetable crops on the population of some arthropods associated with eggplant (*Solanum melongena* L.) and damage potential of eggplant fruit and shoot borer (*Leucinodes orbonalis* Guenee) in the presence of radish (*Raphanus sativus* L.). *The Philippine Agricultural Scientist*, 2013.
- 2013 Calumpang SMF Behavioral response of Asian Corn Borer, *Ostrinia furnacalis* Guenee (Lepidoptera: Pyralidae) and the Common Earwig [*Euborelia annulipes* Lucas (Dermaptera: Anisolabiidae)] to selected plants and weeds associated with sweet corn. *The Philippine Agricultural Scientist*, 2013.
- 2012 The genus *Acizzia* Heslop-Harrison in the Philippines with considerations on the occurrence and host plant affinity of the three local species including one new record. *The Philippine Entomologist*, 2012.
- 2011 Navasero MM and Candano RN Comparative development of *Spodoptera exempta* (Walker) (Noctuidae, Lepidoptera) on *Zea mays* L. and *Panicum maximum* Jacq. in the Philippines with notes on its host range, larval feeding and post emergence behavior of adults. *The Philippine Entomologist*, 2011.
- 2010 Navasero MM Biology of the Black Earwig, *Chelisoches morio* (Fabricius) (Chelisochidae, Dermaptera). *The Philippine Entomologist*, 2010.
- 2010 A new Paurocephaline genus and species (Hemiptera: Psylloidea: Aphalaridae) from the Philippines. *The Philippine Entomologist*, 2010.
- 2010 Host plant index of Philippine psylloids (Hemiptera: Psylloidea). *The Philippine Entomologist*, 2010.
- 2010 Lit Jr IL Effectiveness of thiametoxam gel baits against the Black Crazy Ant, *Paratrechina longicornis* (Latreille). *The Philippine Entomologist*, 2010.
- 2006 Navasero, M.M., Bacud, S.T., Gallentes, J. Pamamahala ng peste ng sampaguita. Monograph, 2006.
- 2005 Navasero, M.M. Pang-komunidad na Pag-aalaga ng Mamumulpol, Pagpaparami, Pag-iimbak, at Paggamit ng Bayrus-NPV. NCP-COVCRE16p, 2005:16p..
- 2005 Navasero MM, Raros LC and Garcia R Mass rearing of the two-spotted mite, *Tetranychus urticae* Koch, on water hyacinth. *The Philippine Entomologist*, 2005.
- 2004 Navasero, M.M., Raros, L.C., Garcia, R. Mass rearing of *Tetranychus truncatus* Ehara (Tetranychidae: Acarina) on water hyacinth, *Eichhornia crassipes* L.. *Philippine Entomologists*, 2004, 18(2):121-126.
- 2003 Floral damage of fruit and shoot orer, *Leucinodes orbonalis* guenee

- (Pyralidae, Lepidoptera) on eggplant.. Philippine Entomologist, 2003, 17(1):170-175.
- 2003 Research Note: Refinement of the laboratory mass production technique for orius tantillus Mostach (Anthocoridae, Lepidoptera).. Philippine Entomologists, 2003, 17(1):176-179.
- 2003 Short Communication: Potential of farm level production and utilization of *Spodoptera litura* Nuclear polyhedrosis Virus. Philippine Entomologists, 2003, 17(1):180-183.
- 2003 Navasero, M.M. Kilalanin natin ang mamumulpol, *Spodoptera litura* (Fabr.). Leaflets, 2003.
- 2003 Navasero, M.M. Pag-aalaga ng Mamumulpol, *Spodoptera litura* (Fabr.). Leaflets, 2003.
- 2003 Navasero, M.M. Mga tanong at sagot tungkol sa bayrus NPV ng mamumulpol. Leaflets, 2003.
- 2003 Navasero, M.M. Pagpaparami, Pag-iimbak at Paggamit ng Bayrus NPV ng Mamumulpol, *Spodoptera litura* (Fabr.). Leaflets, 2003.
- 2003 Navasero, M.M. Isang Pagpapakilala: Development of IPM Schemes for Sampaguita. Leaflets, 2003.
- 2002 Navasero, M.M., Hirao, G.A. Mass rearing of *Dichromothrips corbetti* (Priesner) (Thysanoptera: Thripidae) on Vanda flowers. Philippine Entomologists, 2002, 16(1):33-41.
- 2002 Palis, F.B., Saavedra, N.T. Eggplant and arthropods. Agrolinks, 2002, 4(3):18-19.
- 2001 Calilung, V.J. A new genus and species of Aphalaridae (Psylloidea, Hemiptera) from Mount Makiling, Luzon Island, Philippines. Philippine Entomologists, 2001, 15(2):232-240.
- 2001 Calilung, V.J. The *Paurocephala psylloptera*-complex (Hemiptera: Psylloidea: Aphalaridae) in the Philippines with description of a new species. Philippine Entomologists, 2001, 1:13-21.
- 2001 Navasero, M.M., Hirao, G.A., Santiago, D.R. Some factors affecting mass rearing of the Vanda thrips, *Dichromothrips corbetti* (Priesner) (Thysanoptera: Thripidae). Philippine Entomologists, 2001, 15(1):83-90.
- 2001 Santiago, D.R., Castillo, A.G., Arapan, R.S., Eusebio, J.E. Efficacy of *Metarhizium anisopliae* (Metsch.) Sor. against the Oriental migratory locust, *Locusta migratoria manilensis* Meyen. The Philippine Agricultural Scientists, 2001, 84(1):26-34.
- 2001 Varca, L.M., Ebuenga, M.D., L.E. Fabro, L.E. Insecticide management of tomato fruitworm, *Helicoverpa armigera* (Hubner). Leaflets, 2001.
- 2001 Gonzales P.G., Bayot, R.G. *Helicoverpa* Nuclear Polyhedrosis Virus for biological control of tomato fruitworm, *Helicoverpa armigera* (Hubner). mm, 2001.
- 2000 Calilung, V.J. *Phacopteron gabrieli*, a new psyllid (Hemiptera: Psylloidea: Phacopteronidae) from Mount Makiling, Luzon Island, Philippines. Philippine Entomologists, 2000, 14(1):49-52.
- 1998 *Pseudophacopteron calilungae*, a new psyllid (Hemiptera: Psylloidea: Phacopteronidae) injurious to Pili nut. Philippine Entomologists, 1998, 12(1):7-11.
- 1998 Calilung, V.J. The psyllids (Hemiptera: Psylloidea) of the Philippines: an annotated checklist. Philippine Entomologists, 1998, 12(1).
- 1990 Calilung, V.J. Biology of the Eggplant fruit and shoot borer, *Leucinodes orbonalis* (Guenee) (Lepidoptera: Pyralidae) in the Philippines. Philippine Entomologists, 1990, 8(2):749-760.

1988 Rejesus, B.M., Malayba,M.T., Javier, P.A., Saavedra, N.T., Palacio, I.P. Chemical and cultural control of thrips, *Thrips palmi* Karny, on watermelon. *Philippine Journal of Crop Science*, 1988, 12(1):29-36.

**Name** Francis Norman C. Paraan

**Gender** Male

**Civil Status** Single

**Education**

Graduate Diploma, Condensed Matter Physics, International Centre for Theoretical Physics, Trieste, Italy 27 August 2008

B. S. Applied Physics (Materials concentration, University of the Philippines Diliman, Quezon City, Philippines 23 April 2006

M. A. Physics, State University of New York at Stony Brook, New York, USA 22 December 2010

Ph. D. Physics, State University of New York at Stony Brook, New York, USA 20 December 2012

M. S. Physics, University of the Philippines Diliman, Quezon City, Philippines 01 June 2007

**Association Membership**

Assistant Professor, University of the Philippines Diliman, Quezon City, Philippines

Structure and Dynamics Research Program Coordinator, University of the Philippines Diliman, Quezon City, Philippines

Instructor, University of the Philippines Diliman, Quezon City, Philippines

Research assistant, C. N. Yang Institute for Theoretical Physics, Stony Brook, New York, USA

Teaching assistant, State University of New York at Stony Brook, New York, USA

Associate Member, National Research Council of the Philippines

Associate Member, Samahang Pisika ng Pilipinas

**Publications**

- 2011 Some aspects of the one-dimensional interacting boson gas. Foreign Graduate Student Invitation Program Student Forum at the Tokyo Institute of Technology, Tokyo, Japan, 29 March 2011.
- 2013 Entanglement, statistical mechanics, and parallel computing. 31st Samahang Pisika ng Pilipinas Physics Congress, University of San Carlos, Cebu, 23 October 2013.
- 2014 R. F. Barbera Integer effects in the spin-orbit entanglement entropy in a 2D electron system with Rashba interactions. 14th Asian Quantum Information Science Conference, Kyoto, Japan, 2014.
- 2014 F. A. Bayocboc, Jr Work fluctuations in quantum quenches in the XY model. 14th Asian Quantum Information Science Conference, Kyoto, Japan, 2014.
- 2013 J. Cosme and J. P. Esguerra Thomas-Fermi approach on the particle density of a Tonks-Girardeau gas in harmonic confinement with multiple  $\delta$ -perturbations. 31st Samahang Pisika ng Pilipinas Physics Congress, Cebu, Philippines, 2013.

- 2013 X. M. Puspup Entanglement entropy of impenetrable bosons in 1D: Effects of block length and boundaries. 31st Samahang Pisika ng Pilipinas Physics Congress, Cebu, Philippines, 2013.
- 2013 K. K. R. Seroje Entanglement spectrum and entropy of two-mode squeezed vacuum states. 31st Samahang Pisika ng Pilipinas Physics Congress, Cebu, Philippines, 2013.
- 2013 R. C. Tacbad Parallel speed-up and efficiency in single loop sums and matrix multiplication. 31st Samahang Pisika ng Pilipinas Physics Congress, Cebu, Philippines, 2013.
- 2012 R. A. Santos and V. E. Korepin Quantum phase transition in a multicomponent anyonic Lieb-Liniger model. *Phys. Rev. B* 86, 2012.
- 2012 R. A. Santos, V. E. Korepin, and A. Klümper Entanglement spectra of q-deformed higher spin VBS states. *J. Phys. A: Math. Theor.* 45, 2012.
- 2012 R. A. Santos, V. E. Korepin, and A. Klümper Entanglement spectra of the q-deformed Affleck-Kennedy-Lieb-Tasaki model and matrix product states. *Europhys. Lett.* 98, 2012.
- 2012 J. Molina-Vilaplana, V. E. Korepin, and S. Bose Entanglement in bipartite pure states of an interacting boson gas obtained by local projective measurements. *Erratum* 86, 2012.
- 2011 J. Molina-Vilaplana, V. E. Korepin, and S. Bose Entanglement in bipartite pure states of an interacting boson gas obtained by local projective measurements. *Phys. Rev. A* 84, 2011.
- 2010 V. E. Korepin Perturbative correction to the ground state properties of one-dimensional strongly interacting bosons in a harmonic trap. *Phys. Rev. A* 82, 2010.
- 2009 A. Silva Quantum quenches in the Dicke model: Statistics of the work done and of other observables. *Phys. Rev. E* 80, 2009.
- 2008 M. P. Solon, and J. P. Esguerra Brownian motion of a charged particle driven internally by correlated noise. *Phys. Rev. E* 77, 2008.
- 2006 J. P. Esguerra Exact moments in a continuous time random walk with complete memory of its history. *Phys. Rev. E* 74, 2006.
- 2005 J. P. Esguerra Linear stability and dynamics of a periodic directional chain of fractional relaxors in an anharmonic potential. 23rd Samahang Pisika ng Pilipinas Physics Congress, Iloilo, Philippines, 2005.
- 1120 Tonks-Girardeau gases of bosons, anyons, and fermions. Atomic, Molecular, and Optical Physics Seminars at the State University of New York at Stony Brook, USA, 11 June 2012.

**Name** Maricar S. Prudente  
**Gender** Female  
**Civil Status** Single

**Organizational Affiliations**

Full Professor 7, Science Education Department De La Salle University, Taft Aveue, Manila  
Participating Scientist, International Mussel Watch Project, Asia-Pacific Phase,  
Full Professor 8, De La Salle University, Manila, Philippines

**Education**

Ph.D. in Environmental Chemistry and Ecotoxicology, Ehime University, Japan,  
Japan 1999 Mar. 15  
MST Physics, De La Salle University, Taft Avenue, Manila 1988 Dec,  
BSE Natural Science, Biology, Pamantasan ng Lungsod ng Manila, Manila 1979 Mar.

**Fields of Specialization**

Environmental Pollution  
Environmental Education and Science Education  
Environmental Chemistry and Ecotoxicology

**Employment**

Full Professor 5, De La Salle University, 2006 Feb. 4-2008 Jan. 30  
Full Professor 3, De La Salle University, 2004, Feb. 4-2006, Feb. 4  
Full Professor 2, De La Salle University, 2003 Feb. 4-2004 Feb. 4  
Full Professor 1, De La Salle University, 2001 Jan. 3-2003 Feb. 3  
Associate Professor 5, De La Salle University, 2000 Sept. 13-2001, Dec.  
Associate Professor 4, De La Salle University, 1999 Sept. 13-2000 Sept. 12  
Assistant Professor 6, De La Salle University, 1997 June 2-1999 Sept. 12  
Faculty Member, College of St. Benilde, 1988 May-1997 April  
Director, Lasallian Institute for Development And Educational Research, 2006 May-2012  
April  
Chairperson, Science Education Department , DLSU-Manila, 2000 May-2004 Aug.  
Director, Summer Institute, DLSDU-Manila, 2000-  
Area Coordinator, Natural Sciences, College of St. Benilde, 1993 May-1997 April  
Director, Academic Services, College of St. Benilde, 1989 May-1991 Sept.  
Science Area Coordinator, Sta. Isabel College, 1980 June-1987 April  
Director for Discipline, Sta. Isabel College, 1983, June-1987 April  
Full Professor 8, De La Salle University, April 2009-present

Full Professor 5, De La Salle University, Feb. 04, 2006-March 2009

Director, Lasallian Institute for Development and Educational Research, June 2014-present

### **Association Membership**

Scientific & Technical Advisory Panel Secretariat, United Nations Environment Programme

ROSTER of Expert, United Nations Environment Programme

Global Environment Facility, United Nations Environment Programme

Member, Society of Environmental Toxicology and Chemistry (SETAC, USA)

Member, Japan Society for Environmental Chemistry

Member, DOST- JSPS Philippine Ronpaku Fellows

Board Member, DOST- JSPS Philippine Ronpaku Fellows

Board of Advisors, American Biographical Institute (ABI)

Member, Philippine Association of Japan Ministry of Education Scholars (PHILAJAMES)

Member, Philippine Association of Physics Instructors

Member, Pi Lambda Theta ((International Honor Society and Prof'l. Asso. In Education)

President, DOST- JSPS Philippine Ronpaku Fellows

National President, JSPS Alumni Association of the Philippines (JAAP)

### **Honors / Awards**

Cited in the Marquis Who's Who in Science Engineering, Marquis Who's Who in Science Engineering 2006

Outstanding Women of 2003, American Biographical Institute 2003 Jan.

St. Miguel Febres Cordero Research Award, De La Salle University-Manila 2001 Aug. 09

Outstanding Women of 2000, American Biographical Institute 2000 Jan.

Ronpaku Fellow, Japan Society for the Promotion of Science (JSPS) 1996 - 1999

Teacher Trainee, Japan Ministry of Education and Culture (MONBUSHO) 1991 Sept. 1993 March

### **Trainings**

3rd International Joint Seminar of JSPS Multilateral Core Univ. Program on Coastal Marine Science, Jogjakarta, Indonesia 2007

5th UNU-ORI International Workshop on Marine Environment, by United Nations University, Japan, Otsuchi, Japan 2004

### **Researches**

International Cooperative Research on Contamination by Persistent Organohalogenes in the Philippines Environment: Levels, Profiles, Fate and Exposure Pathways

International Mussel Watch Project – Asia-Pacific Phase

#### **Complete**

Global Pollution Monitoring Using Migratory Shorebirds

Endline Study of Mathematics and Science Teaching in the Philippines

The Contexts and Practices of Science and Math Education in the Philippines

Science and Mathematics Teaching-Learning Processes and Strategies in Preservice Teacher Education Programs

Exploring Mathematics and Science Teaching in the Philippines

Pollution of Persistent Organic Pollutants in Human Breastmilk Collected from Southeast Asia

Pollution of Persistent Organic Pollutants in the Marine and Coastal Environments of Southeast Asia

National Inventory of New POPs in the Philippines

Drawing Best Practices of Community Adaptations to Climate Change: Relating Conceptions, Attitudes and Behavior among Community Members

Drawing Best Practices of Community Adaptations to Climate Change: Relating Conceptions, Attitudes and Behavior among Community Members

International Cooperative Research on Pollution of Persistent Organic Pollutants in Human Breastmilk Collected from Southeast Asia

### **On-going**

JSPS-DOST Multilateral Cooperative Research on Pollution of Persistent Organic Pollutants in the Marine and Coastal Environments of Southeast Asia (POME)

Investigating the Efficacy of Knowledge Channel Video Package in Enhancing Students'

Project Manager (Quality Assurance/Internal Auditor): Investigating the Efficacy of Knowledge Channel Video Package in Enhancing Students' Achievement in the Different Subject Areas

Project Member (Participating Scientist) - Emergent field survey on the present status of chemical pollution brought by typhoon 'Yolanda' in coastal environment of the central Philippines

Project Member (Participating Scientist) - International Cooperative Research on Contamination by Persistent Organohalogenes in the Philippines Environment: Levels, Profiles, Fate and Exposure Pathways

Emergent field survey on the present status of chemical pollution brought by typhoon 'Yolanda' in coastal environment of the central Philippines

### **Papers Presented**

(July 11, 2014). Health and The Environment; National Convenor, 2nd JAAP Scientific Symposium and General Assembly 4th Floor Multipurpose Room, Henry Sy Hall, DLSU-Manila.

(2014). Translating Research Output into ISI-Publishable Format, National Research Council of the Philippines (NRCP) Conference Hall, Bicutan, Taguig, Metro Manila.

(2007). Butyltin Contamination in the Aquatic Environments of the Philippines, 3rd International Joint Seminar of JSPS Multilateral Core University Program on Coastal Marine Science, Jogjakarta, Indonesia/ Sponsored by Ocean Research Institute of the University of Tokyo, Japan and Japan Society for the Promotion of Science.

Tanabe, S. (2004). Trace Elements and POPs in Waders from Calatagan Bay, Philippines, 5th UNU-ORI International Workshop on Marine Environment, Otsuchi, Japan. Sponsored by United Nations University, Japan and the University of Tokyo, Japan.

(2004). Promoting Reflective Level Teaching and Learning: Issues and Challenges, 1st International Conference on Learner-Centered Education, Westin Philippine Plaza Hotel, Manila (sponsored by DLSU-College of St. Benilde).

Aguja, S., Kunisue, T., Tanabe, S. (2004). Persistent Organic Pollutants in Human Breast Milk, Proceedings of the National Workshop 2004 on Asian Regional Research Programme on Environmental Technology (ARRPET) sponsored by Swedish International Development Cooperation Agency (Sida), De La Salle University, Philippines.

Aguja, S., Kunisue, T., Tanabe, S. (2002). Persistent Organic Pollutants in Human Breast Milk, Proceedings of the International Conference on Environmental Threats to the Health of Children sponsored by WHO and Chulabhorn Research Institute, Bangkok, Thailand.

(2002). Monitoring of Persistent and Toxic Substances in the Coastal and Urban Areas in the Philippines, Proceedings of the 1st Technical Working Group Meeting (Region 8-Southeast Asia and South Pacific)/ Regionally Based Assessment of Persistent Toxic Substances sponsored by UNEP (United Nations Environment Programme), Singapore.

Kan-Atireklap, S., Subramanian, A., Tanabe, S. (1998). Marine pollution monitoring of butyltins and organochlorines in the coastal waters of Thailand, Philippines and India, Proceedings of the Joint International Conference on Man and The Ocean, International Symposium on Marine Environment sponsored by Ocean Research Institute (ORI), The University of Tokyo, Iwate Prefecture Government and the United Nations Environment Programme (UNEP), Tokyo, Morioka and Kamaishi, Japan.

Tanabe, S., Iwata, H., Miyazaki, N., Subramanian, A. (1998). Butyltin and organochlorine contamination in marine mammals from the North Pacific and Asian coastal waters, Proceedings of the 4th IOC-WESTPAC International Scientific Symposium on The Role of Ocean Sciences for Sustainable Development sponsored by IOC-WESTPAC and ORI, University of Tokyo, Okinawa, Japan.

Takahashi, S., Shibata, D. Takemoto, N., Nakamura, I., Tanabe, S. (1998). Butyltin and organochlorine residues in tunas collected from Japanese Coastal Waters, the Pacific and Indian Oceans, Proceedings of the International Conference on Trace Metals in the Aquatic Environment, Kuala Lumpur, Malaysia.

## Publications

- 2013 Malarvanan G, Isobe T, Covaci A and Tanabe S Accumulation of brominated flame retardants and polychlorinated biphenyls in human breast milk and scalp hair from the Philippines: levels, distribution and profiles. *Science of the Total Environment*, 2013.
- 2013 Partosa, J., Clores, M., Conde, M.A., Goingo, L., Raganit, R Secondary Teachersâ€™™ Conceptual Understanding of Photosynthesis: A Cross regional stud. *US-China Education Review A & B*, 2013.
- 2013 Pangan, Norway and Socorro Aguja Exploring the Dimensions of a Web-based Learning Package on Chemical Equilibrium. *EdMedia2013 International Conference*, 2013.
- 2013 Dasas, Louie and Socorro Aguja Efficacy of Integrating 21st Century Skills in an Understanding by Design (UbD21) Pedagogical Plan on Life Energy and Processes. *EdMedia2013 International Conference*, 2013.
- 2012 Joon-Woo, K., Isobe, T., Malarvanan, G., Sudaryanto, A., Chang, K., Tanabe, S Contamination of benzotriazole ultraviolet stabilizers in house dust from the Philippines: Implications on Human Exposure. *Science of the Total Environment*, 2012.
- 2012 Aguja, S, Isobe, T. and Tanabe, S Introspective assessment of human exposure to brominated flame retardants in the Philippines. *LIPi-JSPS Asian CORE Seminar 2012-*

Coastal Ecosystems in Southeast Asia, 2012.

- 2010 Cano, M. Aguja, S. and Vilanculos, M Students' Conceptions and Attitudes on Climate Change: Exploring Relationship with Basic Chemistry Concepts. Hawaii International Conference on Education. Waikiki Marriott Hotel, Honolulu, Hawaii, 2010.
- 2009 Malarvannan G., Kunisue T., Isobe T., Sudaryanto, A., Takahashi, S., Subramanian, A., Tanabe, S. Organohalogen compounds in human breast milk from mothers living in Payatas and Malate, the Philippines: levels, accumulation kinetics and infant health risk. *Environmental Pollution (Barking, Essex : 1987)*, 2009, 157(6):1924 - 1932.
- 2009 Saha M., Togo, A., Mizukawa K., Murakami M., Takada, H., Zakaria, M.P., Chiem, N.H., Tuyen B.C., Boonyatumanond R., Sarkar S.K., Bhattacharya, B., Mishra, P., Tana, T.S. Sources of sedimentary PAHs in tropical Asian waters: differentiation between pyrogenic and petrogenic sources by alkyl homolog abundance. *Marine Pollution Bulletin*, 2009, 58(2):189 - 200.
- 2009 Teuten Emma L; Saquing Jovita M; Knappe Detlef R U; Barlaz Morton A; Jonsson Susanne; Björn Annika; Rowland Steven J; Thompson Richard C; Galloway Tamara S; Yamashita Rei; Ochi Daisuke; Watanuki Yutaka; Moore Charles; Viet Pham Hung; Tana Touch Seang; Boonyatumanond Ruchaya; Zakaria Mohamad P; Akkhavong Kongsap; Ogata Yuko; Hirai Hisashi; Iwasa Satoru; Mizukawa Kaoruko; Hagino Yuki; Imamura Ayako; Saha Mahua; Takada Hideshige Transport and release of chemicals from plastics to the environment and to wildlife. *Philosophical transactions of the Royal Society of London. Series B, Biological Sciences*, 2009.
- 2008 Bernardo, A., Limjap, A., Roleda, L. Students' Perceptions of Science Classes in the Philippines. *Asia Pacific Education Review*, 2008, 9(9):285 - 295.
- 2008 Monitoring of Butyltin compounds in the aquatic environments of the Philippines. *Coastal Marine Science*, 2008, 32(1):108 - 115.
- 2007 Ramu, K., Kajiwara, N., Sudaryanto, A., Isobe, T., Takahashi, S., Subramanian, A., Ueno, D., Zheng, G.J., Paul, L., K.S., Takada H., Mohamad, Z.P., Viet Pham, H., Tana Touch, S., Tanabe, S. Asian Mussel Watch Program: contamination status of polybrominated diphenyl ethers and organochlorines in coastal waters of Asian countries. *Environmental Science & Technology*, 2007, 41(13):4580 - 4586.
- 2007 Malarvannan, G., Tanabe, S. Persistent Toxic Substances in the Philippine Environment. In: *Persistent Organic Pollutants in Asia: Sources, Distributions, Transport and Fate, Developments in Environmental Science*, (A. Li, S. Tanabe, G. Jiang, JP. Giesy and P.K.S. Lam eds.), Elsevier Ltd., 2007, 7:559 - 585.
- 2007 Butyltin Contamination in the Aquatic Environments of the Philippines. 3rd International Joint Seminar of JSPS Multilateral Core University Program on Coastal Marine Science, 2007.
- 2006 Ueno Da., Alae M., Marvin C., Muir Derek C.G., Macinnis Go., Reiner E., Crozier P., Furdui V.I; Subramanian A., Fillmann G., Lam Paul K.S., Zheng G.J.; Muchtar M., Razak H., Chung K., Chung K.; Tanabe S. Distribution and transportability of hexabromocyclododecane (HBCD) in the Asia-Pacific Region using skipjack tuna as a bioindicator. *Environmental Pollution*, 2006, 144(1):238 - 247.
- 2006 Kajiwara N., Kamikawa S., Ramu K., Ueno D., Yamada T.K., Subramanian A., Lam Paul K.S., Jefferson T.A., Chung Kyu-Hyuck, and Tanabe S. Geographical distribution of polybrominated diphenyl ethers (PBDEs) and organochlorines in small cetaceans from Asian waters. *Chemosphere*, 2006, 64(2):287 - 295.
- 2005 Tanabe, S., Kunisue, T., Yasunaga, G., Watanabe, I., and Miyazaki, N. Accumulation of

- trace elements and organochlorines in resident and migratory waders from Calatagan Bay, Philippines. *Coastal Marine Science*, 2005, 29(2):133 - 140.
- 2005 Ueno D., Watanabe M., Subramanian A., Tanaka H., Fillmann G., Lam Paul K.S., Zheng G.J., Muchtar M., Razak H., Chung Kyu-Hyuck, Tanabe, S. Global pollution monitoring of polychlorinated dibenzo-p-dioxins (PCDDs), furans (PCDFs) and coplanar polychlorinated biphenyls (coplanar PCBs) using skipjack tuna as bioindicator. *Environmental Pollution (Barking, Essex : 1987)*, 2005, 136(2):303 - 313.
- 2005 Kan-atireklap, S., Tanabe, S., Subramanian, A. Marine Pollution Monitoring of Butyltins and Organochlorines in the Coastal waters of Thailand, the Philippines and India. In: *Mankind and the Oceans*, (Miyazaki, N. Adeel, Z. and Ohwada, K. eds.), United Nations University Press, Tokyo, Japan, 2005:68 - 91.
- 2004 Hagino, Y., Takada, H., Zakaria, M.P., Landfill leachate as a source of phenolic endocrine disrupting chemicals to South East Asian waters. *Environmental Science and Technology*, 2004.
- 2004 Isobe Kei O., Zakaria M.P., Chiem Nguyen H., Minh Le Y., Boonyatumanond R., Saha M., Sarkar S., and Takada H. Distribution of linear alkylbenzenes (LABs) in riverine and coastal environments in South and Southeast Asia. *Water Research*, 2004, 38(9):2448 - 2458.
- 2004 Kunisue T., Watanabe M., Iwata H., Subramanian A., Monirith I., Minh T.B., Baburajendran R., Tana T.S., Viet P.H., Tanabe, S. Dioxins and related compounds in human breast milk collected around open dumping sites in Asian developing countries: bovine milk as a potential source. *Archives of Environmental Contamination and Toxicology*, 2004, 47(3):414 - 426.
- 2004 Ueno D., Kajiwara N., Tanaka H., Subramanian A., Fillmann G., Lam Paul K.S., Zheng Gene J., Muchitar M., Razak H., Chung Kyu-Hyuck, Tanabe S. Global pollution monitoring of polybrominated diphenyl ethers using skipjack tuna as a bioindicator. *Environmental Science & Technology*, 2004, 38(8):2312 - 2316.
- 2004 Ueno D., Inoue S., Takahashi S., Ikeda K., Tanaka H., Subramanian A.N., Fillmann G., Lam P.K.S., Zheng J., Muchtar M., Chung K., and Tanabe S. Global pollution monitoring of butyltin compounds using skipjack tuna as a bioindicator. *Environmental Pollution (Barking, Essex : 1987)*, 2004, 127(1):1 - 12.
- 2004 Isobe, K., Zakaria, M., Chiem, N., Minh, L., Ruchaya, B., Mahua, S., Santosh, S., Takada, H. Distribution of Linear Alkylbenzenes (LABs) in riverine and coastal environments in South and Southeast Asia. *Water Research*, 2004, 38:2449 - 2459.
- 2004 Aguja, S., Kunisue, T., Tanabe, S. Persistent Organic Pollutants in Human Breast Milk. *Proceedings of the National Workshop 2004 on Asian Regional Research Programme on Environmental Technology (ARRPET)*, sponsored by Swedish International Development Cooperation Agency (SIDA), DLSU, Philippines, 2004.
- 2004 Tanabe, S Trace Elements and POPs in Waders from Calatagan Bay, Philippines. 5th UNU-ORI International Workshop on Marine Environment, 2004.
- 2004 Promoting Reflective Level Teaching and Learning: Issues and Challenges. 1st International Conference on Learner-Centered Education, 2004.
- 2004 Aguja, S., Kunisue, T. and Tanabe, S Persistent Organic Pollutants in Human Breast Milk. *National Workshop 2004 on Asian Regional Research Programme on Environmental Technology (ARRPET)*, 2004.
- 2004 Bernardo, A., Limjap, A. and Roleda, R Endline Study of Mathematics and Science

- Teaching in the Philippines. DLSU Press Inc., DECS and Japan International Cooperation Agency (JICA), 2004.
- 2003 Ueno D., Takahashi S., Tanaka H., Subramanian, A.N., Fillmann, G., Nakata H., Lam, P.K.S., Zheng, J., Muchtar, M., Chung, K.H., Tanabe, S. Global pollution monitoring of PCBs and organochlorine pesticides using skipjack tuna as a bioindicator. *Archives of Environmental Contamination and Toxicology*, 2003, 45(3):378 - 389.
- 2003 Monirith In., Ueno D., Takahashi S., Nakata H., Sudaryanto A., Subramanian A., Karuppiah S., Ismail A., Muchtar M., Zheng J., Richardson B.J., Hue Ngyen D., Tana Touch S., Tkalin A.V. and Tanabe S. Asia-Pacific mussel watch: monitoring contamination of persistent organochlorine compounds in coastal waters of Asian countries. *Marine Pollution Bulletin*, 2003, 46(3):281 - 300.
- 2003 Kunisue T., Watanabe M., Subramanian A., Sethuraman A., Titenko A.M., Qui V., Tanabe S. Accumulation features of persistent organochlorines in resident and migratory birds from Asia. *Environmental Pollution (Barking, Essex : 1987)*, 2003, 125(2):157 - 172.
- 2003 Minh, N. H., Minh, T. B., Watanabe, M., Kunisue, T., Monirith, I., Tanabe, S., Sakai, S., Subramanian, A., Sasikumar, K., Viet, P.H., Tuyen, B. C. and Tana, T. S. "Open Dumping Site in Asian Developing Countries: A Potential Source of Polychlorinated Dibenzo ? p ? Dioxins and Polychlorinated Dibenzofurans".. *Environmental Science and Technology*, 2003, 37(8):1493 - 1501.
- 2003 Monirith, I., Ueno, D., Takahashi, S., Nakata, H., Sudaryanto, A., Subramanian, A., Karuppiah, S., Ismail, A., Muchtar, M., Zheng, J., Richardson, B.J., Hue, N.D., Tana, T.S., Tkalin, A.V. and Tanabe, S. "Asia-Pacific Mussel Watch: monitoring contamination of persistent organochlorine compounds in Coastal Waters of Asian Countries.. *Marine Pollution Bulletin*, 2003, 46:281 - 300.
- 2003 Bernardo, A., Prudente, M. and Limjap, A Exploring Mathematics and Science Teaching in the Philippines. DLSU Press Inc., DECS and Japan International Cooperation Agency (JICA)., 2003.
- 2002 Sudaryanto A., Takahashi S., Monirith I., Ismail A., Muchtar M., Zheng J., Richardson B.J., Subramanian A., Hue Nguyen D., and Tanabe S. Asia-Pacific mussel watch: monitoring of butyltin contamination in coastal waters of Asian developing countries.. *Environmental Toxicology and Chemistry / SETAC*, 2002, 21(10):2119 - 2130.
- 2002 Aguja, S., Kunisue, T. and Tanabe, S. Persistent Organic Pollutants in Human Breast Milk. International Conference on Environmental Threats to the Health of Children sponsored by WHO and Chulabhorn Research Institute, 2002.
- 2002 Monitoring of Persistent and Toxic Substances in the Coastal and Urban Areas in the Philippines. 1st Technical Working Group Meeting (Region 8-Southeast Asia and South Pacific) â€"Regionally Based Assessment of Persistent Toxic Substances sponsored by UNEP (United Nations Environment Programme), 2002.
- 2002 Science and Mathematics Teaching-Learning Processes and Strategies in Preservice Teacher Education Programs. UP-NISMED, Educational Research Network and DOST-Science Education Institute, 2002.
- 2000 Minh T.B., Watanabe M., Tanabe S., Miyazaki N., Jefferson T.A., Subramanian A., Karuppiah, S. Widespread contamination by tris(4-chlorophenyl) methane and tris(4-chlorophenyl) methanol in cetaceans from the North Pacific and Asian coastal waters.. *Environmental Pollution (Barking, Essex : 1987)*, 2000, 110(3):459 - 468.
- 2000 Minh T.B., Nakata H., Watanabe M., Tanabe S., Miyazaki N., Jefferson T.A., and Subramanian A. Isomer-specific accumulation and toxic assessment of polychlorinated

- biphenyls, including coplanar congeners, in cetaceans from the North Pacific and Asian coastal waters.. Archives of environmental contamination and toxicology, 2000, 39(3):398 - 410.
- 2000 Yasunaga, G., Watanabe, I., Subramanian, A., Qui, V. and Tanabe, S. "Trace Elements Accumulation in Waders from Asia".. Toxicological and Environmental Chemistry, 2000, 77:75 - 92.
- 2000 Minh, T.B., Nakata, H., Watanabe, M., Tanabe, S., Miyazaki, N., Jefferson, T.A., and Subramanian, A. "Isomer-specific Accumulation and toxic assessment of polychlorinated biphenyls, including coplanar congeners in cetaceans from the North Pacific and Asian Coastal waters". Archives of Environmental Contamination and Toxicology., 2000, 39(2000):398 - 410.
- 2000 Kan-Atireklap, S., Subramanian, A. and Tanabe, S. "Marine pollution monitoring of butyltins and organochlorines in the coastal waters of Thailand, Philippines and India". Ocean and Coastal Management, 2000, 43:819 - 839.
- 2000 Bernardo, A., Clemena, R The Contexts and Practices of Science and Math Education in the Philippines. DLSU Press Inc., DECS and Japan International Cooperation Agency (JICA), 2000.
- 1999 Ichihashi, H., Kan-atireklap, S., Watanabe, I. and Tanabe, S. "Butyltins, organochlorines and metal levels in green mussel *Perna viridis* from the coastal waters of the Philippines". Fisheries Science, Tokyo, Japan, 1999, 65(3):441 - 447.
- 1998 Tanabe, S., Watanabe, M., Subramanian, A., Miyazaki, N., Suarez, P., Tatsukawa, R. Organochlorine contamination in some odontoceti species from the North Pacific and Indian Ocean. Marine Environmental Research, Elsevier Science Ltd., Great Britain, 1998, 44:415 - 427.
- 1998 Tanabe, S., Mizuno, T., Hasegawa, J., Iwata, H. and Miyazaki, N. "Butyltin contamination in marine mammals from North Pacific and Asian coastal water". Environmental Science and Technology, American Chemical Society, USA., 1998, 32:193 - 198.
- 1998 Kan-Atireklap, S., Subramanian, A. and Tanabe, S Marine pollution monitoring of butyltins and organochlorines in the coastal waters of Thailand, Philippines and India. Joint International Conference on Man and The Ocean "International Symposium on Marine Environment", 1998.
- 1998 Tanabe, S., Iwata, H., Miyazaki, N. and Subramanian, A Butyltin and organochlorine contamination in marine mammals from the North Pacific and Asian coastal waters. 4th IOC-WESTPAC International Scientific Symposium on The Role of Ocean Sciences for Sustainable Development, 1998.
- 1998 Takahashi, Shibata, D. Takemoto, N., Nakamura, I. and Tanabe, S Butyltin and organochlorine residues in tunas collected from Japanese Coastal waters, the Pacific and Indian Oceans. International Conference on Trace metals in the Aquatic Environment, 1998.
- 1997 Kim, E.Y., Tanabe, S. and Tatsukawa, R. "Metal levels in some commercial fish species from Manila Bay, the Philippines.. Marine Pollution Bulletin, Elsevier Science Ltd., Great Britain., 1997, 34:671 - 674.
- 1997 Lee, D.B., Tanabe, S. and Tatsukawa, R. "Organochlorine residues in soils and sediments from Manila and nearby provinces, Philippines". Toxicological and Environmental Chemistry, OPA, The Netherlands., 1997, 60:171 - 181.
- 1994 Ichihashi, H. and Tatsukawa, R. "Heavy metal concentrations in sediments from Manila

Bay, Philippines and inflowing rivers". *Environmental Pollution*, Elsevier Science Ltd., Great Britain., 1994, 86:83 - 88.

Nguyen Hung M., Tu Binh M., Watanabe M., Kunisue T., Monirith I., Tanabe S., Sakai S., Subramanian A., Sasikumar K., Pham Hung V., Bui Cach T., Tana Touch S. Open dumping site in Asian developing countries: a potential source of polychlorinated dibenz-p-dioxins and polychlorinated dibenzofurans. *Environmental Science & Technology*.

**Name** Henry J. Ramos  
**Place of Birth** Agoo, La Union, Philippines  
**Date of Birth** 15 July 1950  
**Gender** Male  
**Civil Status** Married  
**Home Address** L18, B15, P2B, Ciudad Real, San Jose Del Monte City, Bulacan  
3023 , A-103 Hardin ng Bougainvillea, A

**Organizational Affiliations**

Professor, National Institute of Physics College of Science, University of the Philippines, Diliman Quezon City 1101

**Education**

Ph. D., Plasma Physics , University Philippines, Diliman Quezon City, Philippines, Quezon City, Philippines 1990

M.S. (Plasma Physics), Flinders University, South Australia 1978

B.S. (Math-Physics), UP College, Baguio City 1972

High School, University of Baguio Science High, Baguio City 1968

**Fields of Specialization**

Experimental Plasma Physics

**Employment**

Program Coordinator Plasma Physics Lab, National Institute of Physics, College of Science, UP Diliman, Quezon City, Jan. 1998-present

Program Coordinator Plasma Physics Lab, National Institute of Physics, College of Science, UP Diliman, Quezon City, Jan. 1990-June 1996

Professor of Physics, National Institute of Physics, College of Science, Univ. of the Philippines Diliman, Quezon City, 1992-present

Director, National Institute of Physics, College of Science, Univ. of the Phil., Diliman Quezon City, June 1997-May 2000

Acting Director, National Institute of Physics, College of Science, UP Diliman, Quezon City, January 1993-April 1993

Acting Director, National Institute of Physics, College of Science, UP Diliman, Quezon City, May 1996-May 1997

Director, National Institute of Physics, College of Science, UP Diliman, Quezon City, May 1993-April 1996

Deputy Director for Resources & Facilities, National Institute of Physics, College of Science, UP Diliman, Quezon City, Jan., 1990-Dec. 1992

Program Coordinator Elem. Physics Lab., National Institute of Physics, College of Science, UP Diliman, Quezon City, June 1989-December 1989

**Association Membership**

Visiting Scientist, Institute of Plasma Physics, Nagoya University, Japan

Visiting Scientist, Institute of Plasma Physics, Nagoya University, Japan

Associate Dean for Research and Extension, College of Science, UP Diliman, Quezon City

Director, Project Management and Resource Generation Office, Office of the Vice Chancellor for Research and De

Visiting Scientist, Institute of Plasma Physics, Nagoya University, Japan

Visiting Scientist, Institute of Plasma Physics, Nagoya University, Japan

Visiting Scientist, National Institute of Fusion Science Toki, Gifu, Japan (under the auspices of JSPS)

Professor of Physics, National Institute of Physics, College of Science, Univ. of the Philippines Diliman, Quezon City

Coordinator, Science and Society Program, College of Science, Univ. of the Phil., Diliman Quezon City

Coordinator, Science and Society Program, College of Science, Univ. of the Phil., Diliman Quezon City

Chairman, Physics Discipline Committee on Manpower Dev't., Philippine Council for Advanced Science & Technology Research & Development (PCASTRD), DOST

Chairman, Physics Division, National Research Council of the Phil

Area Leader (Physics), Alternative Approach to Faculty Dev't. for Science Education via the Distance Education Mode, UP O

National Contact Person, Asian Physics Education Network (ASPEN)

Project Leader, Summer Bridging Program for Physics Teachers

Member, Technical Panel on Instrumentation and Electronics, Department of Science and Technol. (DOST) - Phil. Council For Advanced Science and Technol. Research

Member, UP Mindanao University Council

Affiliate Faculty, UP Open University

Organizer, Joint Japan-Philippines Workshop on Plasma Production and Industrial Applications, Quezon City, Phil

Councilor, Samahang Pisika ng Pilipinas (Phil. Physics Society)

Treasurer, Samahang Pisika ng Pilipinas (Phil. Physics Society)

Member, Physics Equipment Subcommittee, Eng'g. & Science Education Project (ESEP), DOST

Member, Asia-Africa Association for Plasma Training (AAAPT)

Member, Working Group, UNESCO University

Head, Solar Energy Section, Phil. National Oil Co.- Energy Research & Dev't. Center

#### **Honors / Awards**

Ph. D. Consortium Fellow, UP-Ateneo De Manila-De la Salle Univ. 1984-1989

Colombo Plan Research Fellow, Flinders University, Adelaide 1975-1978

Baguio Scholar, Rotary Club 1970

Visiting Scientist, Japan Society for the Promotion of Science to the National Institute for Fusion Science, Nagoya February-March, 1984

Visiting Scientist, Japan Society for the Promotion of Science to the National Institute for Fusion Science, Nagoya February - March, 1988

Visiting Scientist, Japan Society for the Promotion of Science to the National Institute for Fusion Science, Nagoya March - June, 1995

Visiting Scientist, Japan Society for the Promotion of Science to the National Institute for Fusion Science, Nagoya March, 1998, and February - March, 2000

Achievement Award in Physics, NRCP 1992

Professorial Chair Holder, UP 1990

First Prize, Best Published Research for 1996, Gawad Chanselor, U.P. Diliman 1996

Best Innovation/Invention, Gawad Chanselor Award, U.P. Diliman 1998

Golden Jubilee Alumni Award, Univ. of Baguio Alumni Foundation, Inc 1998

UP International Publication Award, UP DILIMAN 2001, 2003-2013

First Prize, 2005 Outstanding R&D in Advanced Science and Technology, Philippine Council for Advanced Science and Technology Research and Development, Department of Science 2005

Advanced Technology Award, University of the Philippines 2005

Meritorious Service Award, Philippine Council for Advanced Science and Technology Research and Development, Department of Science 2007

50 Men and Women of Science, Golden Jubilee, Department of Science and Technology 2008

UP Scientist III since 2013 and UP Scientist I, University of the Philippines 2007-2012

### **Papers Presented**

(September 25, 1999). Science for national development through government-academe linkage, Science and Government Forum: How Can Scientists and the Government Work Together for the Development of our Country?, West Visayas State University, La Paz, Iloilo City.

A. Taniike, M. Sasao and M. Wada (September 22-26, 1995). Development of ion source for high grade coatings, 15th Annual Conf. of the Japan Society of Fusion and Plasma Science Research, Osaka.

(September 21-22, 1999). Emerging trends in higher education research: focus on physics R& D in the Philippines, CHED Conference-Workshop on Strengthening Research Advocacy in Higher Education, Subic Bay Freeport Area.

(September 20, 2000). The Role of Science and Technology in Society Transformation, Science and Technology Career Seminar sponsored by the Philippine Society of Youth Science Clubs, Inc., UP ISMED Auditorium, UP Diliman, Quezon City.

L. M. Rosario, R. P. Viloan, M. M. Villamayor, R. Tumlos (September 13-17, 2010). Growth of nitrogen-containing diamond-like carbon using a magnetized sheet plasma source, 12th International Conference on Plasma Surface Engineering, Congress Center, Garmisch-Partenkirchen, Germany.

H. V. Lee, Jr., L. M. Rosario, R. P. Viloan, M. M. Villamayor, R. Tumlos (September 13-17, 2010). Particle-in-cell simulation of a magnetized sheet plasma using a magnetron for sputtering enhancement, 12th International Conference on Plasma Surface Engineering, Congress Center, Garmisch-Partenkirchen, Germany.

R. Tumlos, J. A. Ting, E. Osorio, L. M. Rosario, A. Ulano, H. Lee Jr., G. Regalado (September 13-17, 2010). Results of the study of chemical, vacuum drying- and plasma-pretreatment of coconut (*Cocos nucifera*) lumber sawdust for the adsorption of methyl red in water solution, 12th International Conference on Plasma Surface Engineering, Congress Center, Garmisch-Partenkirchen, Germany.

P. Concepcion, R. Flauta, and M. Wada (September 13-17, 2010). Surface and layered structures of bulk GaN synthesized in a multi-cusp sputter-type ion source, 12th International Conference on Plasma Surface Engineering, Congress Center, Garmisch-Partenkirchen, Germany.

M. Camacho and G. Blantocas (October 28-30 2009). Effect of hydroxyl bond formation on the adhesion improvement of a polyethylene copper thin film system, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

L. Rosario, R. Viloan, M. Villamayor and R. Tumlos (October 28-30 2009). Influence of deposition parameters on the properties of composite TiN/a films, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

R. Viloan, L. Rosario, M. Villamayor, A. Ulano and B. Suarez (October 28-30 2009). Synthesis of TiN coatings on titanium via a magnetron sputtering in a magnetized sheet plasma source, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

A. Pacho, G. Malapit, E. pares and A. Mendenilla (October 28-30 2009). Synthesis of diamondlike carbon via PECVD using a streaming neutral gas injection hollow cathode, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

C. Lumban, K. Pabelina and G. Blantocas (October 28-30 2009). FTIR analysis of phosphoric acid plasma-treated plywood, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

L. Rosario, M. Villamayor, R. Viloan, B. Suarez and R. Tumlos (October 28-30 2009). A comparison of TiN/a-C films produced from various carbon sources, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

R. Tumlos, E. Osorio, J. Ting, L. Rosario, A. Ulano, H. Lee and G. Regalado (October 28-30 2009). Vacuum and plasma-processed coconut sawdust for removal of methyl red dye in water, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

J. Ting, L. Rosario, R. Viloan, M. Villamayor and R. Tumlos (October 28-30 2009). Optical emission spectroscopy of multilayered Ti/TiN/TiCN deposition in a magnetized sheet plasma source, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

A. Flores, G. Malapit, E. Casulla, P. Concepcion and G. Blantocas (October 28-30 2009). Fabrication of Si nanopillar by reactive ion etching using a gas discharge ion source, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

A. Pacho, M. Lacdan, A. Mendenilla, G. Malapit, and M. Tenorio (October 28-30 2009). Discharge characteristics of a streaming neutral gas injection hollow cathode, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

B. Suarez, L. Rosario, M. Villamayor, R. Viloan and R. Tumlos (October 28-30 2009). The

different colors of titanium nitride coatings, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

A. Ulano, G. Malapit, R. Viloan, M. Villamayor and R. Tumlos (October 28-30 2009). Si<sub>3</sub>N<sub>4</sub> synthesis using a magnetized sheet plasma negative ion source, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

H. Lee Jr., L. Rosario, R. Viloan, M. Villamayor and R. Tumlos (October 28-30 2009). Optimization results of argon ion trajectory simulations for different magnetron sputtering considerations, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

H. Salapare III, G. Blantocas, A. Gines, M. Poral and M. Agcaoili (October 28-30 2009). Influence of oxygen plasma on the wettability of polytetrafluoroethylene, 27th SPP Physics Congress, Development Academy of the Philippines, Tagaytay City.

F. Garcia and R. Tumlos (October 27-30, 1997). Design and Construction of a Computer Controlled Data Acquisition System for Use on a Langmuir Probe, 15th Congress, Univ. of San Carlos, Cebu City.

A. Mendenilla and R. Awayan (October 27-30, 1997). Detection and Analysis of Plasma Species Using a Compact Mass Spectrometer, 15th Congress, Univ. of San Carlos, Cebu City.

O. Santillan and A. Mendenilla (October 27-29, 2000). Effect of Extraction Electrode on Ion Beam Focusing in a Plasma Sputter-Type Negative Ion Source, 18th Congress, Puerto Princesa, Palawan.

A. Mendenilla (October 27-29, 2000). Zr/ZrN Ion Formation from a Multi-cusp Ion Source, 18th Congress, Puerto Princesa, Palawan.

Y. Abate and M. Arciaga (October 27-29, 2000). Density Measurements of Negative Hydrogen Ions Using Mass Spectrometer, 18th Congress, Puerto Princesa, Palawan.

G. Malapit, A. Mendenilla, A. Montecillo and A. Ubarro (October 27-29, 2000). Growth of Uniform Diamond-like Carbon Thin Films, 18th Congress, Puerto Princesa, Palawan.

A. Mendenilla, M. G. Cardinal, R. Awayan, G. Blantocas, M. Macandog and M. Wada (October 27-29, 2000). A new compact Mass Analyzer for Extracting H<sup>-</sup> in a Magnetized Sheet Plasma, 18th Congress, Puerto Princesa, Palawan.

G. Blantocas (October 27-29, 2000). A Focus on Streaming Instability as a Probable Cause of Dispersion in the Sheet Plasma Negative Ion Source, 18th Congress, Puerto Princesa, Palawan.

F. Domingo (October 27-29, 2000). A Numerical Solution for the Time Evolution of a Periodic Acceleration Field in a Plasma System, 18th Congress, Puerto Princesa, Palawan.

Zr negative ion beam production in a plasma sputter-type negative ion source (October 27- 29, 1998). N. Valmoria, A. Mendenilla and M. Yambot, Characteristics of a He<sup>+</sup> beam extracted from a compact multicusp ion source.

M. Yambot, A. Mendenilla, N. Valmoria and R. Tumlos (October 27- 29, 1998). GPIB controlled electrostatic energy analyzer in a plasma sputter-type negative ion source, 16th Congress, Ateneo de Manila University, Loyola Heights, Quezon City.

I. Oconer and A. Yap (October 26-29, 1998). Film deposition of TiN on metal substrates using a plasma sputter-type ion source, Abstracts of the International Meeting on Frontiers of Physics, Kuala Lumpur, Malaysia.

J. de Vero, W. Garcia, H. Ramos, and R. Sarmago (October 25-27, 2010). Argon plasma etching of IRPLD grown Bi-2222 thin films, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

H. Salapare III, A. Gines, G. Blantocas, J. Salamania and M. Villanueva (October 25-27, 2010). Fourier transform infrared spectroscopy (FTIR) characterization of oxygen-ion treated polytetrafluoroethylene (PTFE) materials, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

D. Putungan, A. Santos and M. Albao (October 25-27, 2010). Ordering correlation function implementation for ordering analysis of 1D nanowires simulated via kinetic Monte Carlo method, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

B. Suarez, M. Villamayor and V. Noguera (October 25-27, 2010). Sn-Bi deposition on stainless steel samples as selective coating using the sheet plasma negative ion source, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

C. Lumban, K. Pabelina (October 25-27, 2010). Effects of chemical and plasma treatment on the flame retardance of plywood, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

J. S. Hismaña and G. Q. Blantocas (October 25-27, 2006). Investigation of the gas discharge ion source three-electrode system for optimum H<sup>+</sup> extraction, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

V. R. Noguera, M. Camacho and E. Lagsa (October 25-27, 2006). Investigations on the effects of Ti target position and bias potential to the synthesis of TiN in a magnetized sheet plasma source, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

M. E. Arciaga, A. M. Ulano and R. B. Tumlos (October 25-27, 2006). Electron temperature measurement of an argon microwave discharge using spectroscopic analysis of 4p transition levels, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

M. Villamayor and V. Noguera (October 25-27, 2006). TiN depth calibration of simulated synthesis using kinetic Monte Carlo method, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

R. V. R. Virtudazo, M. L. Baligod, R. B. Battung, A. P. Formento and V. R. Noguera (October 25-27, 2006). Synthesis of MgO on stainless steel substrates in a magnetized sheet plasma source, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

M. P. Alarcon, D. E. Balacano, A. A. Liberato, D. D. Navaja (October 25-27, 2006). Effect of using variable extractor voltage in N<sup>+</sup> plasma-enhanced chemical vapor deposition on substrate land pads, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

P. C. Concepcion, E. P. Casulla, R. E. Flauta and M. Wada (October 25-27, 2006). Conductive atomic force microscopy of plasma sputter-type ion source deposited gallium nitride thin films, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

E. V. B. Lagsa, A. K. G. Tapia, R. Tabajonda, K. Olova and V. Noguera (October 25-27, 2006). Surface morphology and optical characterization of argon plasma treatment of polyaniline emeraldine base at various powers, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

E. A. Villegas and V. R. Noguera (October 25-27, 2006). Electron energy distribution

function (EEDF) analysis of negative hydrogen ion (H<sup>-</sup>) enhancement in a magnetized sheet plasma source, 24th SPP Physics Congress, Ateneo de Davao University, Davao City.

Y. D. M. Ponce and J. R. S. Lazarte (October 25-27, 2004). Effect of wall material on H<sup>-</sup> production in a plasma sputter-type ion source, 22nd Samahang Pisika ng Pilipinas Physics Congress.

L. M. M. Villorente and V. R. Noguera (October 25-27, 2004). Effect of cesium seeding on the production of H<sup>-</sup> ions in a magnetized sheet plasma source, 22nd Samahang Pisika ng Pilipinas Physics Congress.

M. E. Arciaga, T. Kasuya, A. G. Mendenilla and M. Wada (October 25-27, 2004). Numerical calculation of the temperature distribution along a tungsten filament cathode to explain its breakage near the negative terminal, 22nd Samahang Pisika ng Pilipinas Physics Congress.

P. H. Pineda and M. A. T. Siringan (October 25-27, 2004). Destruction of *Bacillus subtilis* using a low pressure glow discharge plasma, 22nd Samahang Pisika ng Pilipinas Physics Congress.

C. P. Patacsil and G. M. Malapit (October 25-27, 2004). Optical emission spectroscopy of low temperature CVD diamond, 22nd Samahang Pisika ng Pilipinas Physics Congress.

V. R. Noguera and L. M. M. Villorente (October 25-27, 2004). Effect of magnesium on the negative hydrogen on production in magnetized sheet plasma source, 22nd Samahang Pisika ng Pilipinas Physics Congress.

L. Reyes, J. Ting, R. Tumlos, and R. Sarmago (October 25-27 2010). Oxygen plasma treatment of electrospun hydroxyapatite/chitosan-PCL bioscaffold for bone tissue engineering, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

K. Pabelina, J. Guhit, C. Romero, J. Daseco, J. de Vero (October 25-27 2010). Optical emission spectroscopy studies on the efficacy of nitrogen addition to boric acid plasma as flame retardant on wood, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

D. Putungan, A. Antos, and M. Albao (October 25-27 2010). Analysis of in situ and in vivo surface morphology of Ga 1D nanowires on Si(100): a kinetic Monte Carlo study, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

C. Mahinay and G. Malapit (October 25-27 2010). Ion currents and energy spreads for Zr<sup>-</sup>, Cu and Au<sup>-</sup> ion beams in a plasma sputter-type negative ion source, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

C. Mahinay and G. Malapit (October 25-27). Ion currents and energy spreads for Zr<sup>-</sup>, Cu and Au<sup>-</sup> ion beams in a plasma sputter-type negative ion source, 28th SPP Physics Congress, Meralco Management and Leadership Development Center, Antipolo City.

E. A. Pares and M.A.T. Siringan (October 24-26, 2007). Focusing mechanism for an increased H<sub>2</sub>O<sub>2</sub> plasma sterilization efficiency, 25th SPP Physics Congress, University of the Philippines, Los Baños, Laguna.

A. M. Javonitalla (October 24-26, 2007). Characterization and optimization of the streaming neutral gas injection (SNGI) facility, 25th SPP Physics Congress, University of the Philippines, Los Baños, Laguna.

K. G. Pabeliña and M. A. T. Siringan (October 24-26, 2007). Sterilization of a packaged

material using low pressure glow discharge plasmas, 25th SPP Physics Congress, University of the Philippines, Los Baños, Laguna.

M. Villamayor, M. Capili, V. Noguera (October 24-26, 2007). Investigating TiN formation through mapping of sheet plasma using Langmuir probe, 25th SPP Physics Congress, University of the Philippines, Los Baños, Laguna.

H. S. Salapare III, A. M. Ulano, H. V. Lee Jr., G. Q. Blantocas, V. R. Noguera, M. A. C. Camacho and V. R. Daria (October 24-26, 2007). Optical characterization of hydrogen ion treated polytetrafluoroethylene (Teflon) materials, 25th SPP Physics Congress, University of the Philippines, Los Baños, Laguna.

M. E. Arciaga, A. G. Mendenilla and G. Q. Blantocas (October 23-25, 2002). Effects of extraction and lens voltages in extracting H<sup>-</sup> ions from a magnetized sheet plasma using an ExB probe, 20th Samahang Pisika ng Pilipinas Congress, Naga City.

A. S. Flores, G. Malapit, R. Loberternos, G. Blantocas (October 22-24, 2008). Production of nanodot structure in silicon (100) substrate by low energy reactive ion bombardment, 26th SPP Physics Congress, University of the Philippines, Baguio City.

M. C. Camacho, G. Blantocas, G. Malapit, P. Concepcion and G. Santos (October 22-24, 2008). Surface treatment of high density polyethylene (HDPE) with hydrogen and oxygen glow discharge plasma, 26th SPP Physics Congress, University of the Philippines, Baguio City.

H. D. Barra and M. S. Villamayor (October 22-24, 2008). Enhanced TiN deposition rate in a magnetized sheet plasma source, 26th SPP Physics Congress, University of the Philippines, Baguio City.

H. S. Salapare III, V. R. Noguera, G. Q. Blantocas (October 22-24, 2008). Wetting dynamics model of hydrogen ion treated polytetrafluoroethylene (PTFE) materials, 26th SPP Physics Congress, University of the Philippines, Baguio City.

K. Pabelina, M. Villamayor, M. Siringan (October 22-24, 2008). Antimicrobial properties of titanium copper nitride produced by a magnetized sheet plasma source, 26th SPP Physics Congress, University of the Philippines, Baguio City.

M. S. Villamayor, V. R. Noguera (October 22-24, 2008). Asymmetric orientation of targets for TiCuN deposition in a magnetized sheet plasma ion source, 26th SPP Physics Congress, University of the Philippines, Baguio City.

M. R. Agacaoili and G. Q. Blantocas (October 22-24, 2008). Tailoring cellulosic textile properties using low energy hydrogen ion shower, 26th SPP Physics Congress, University of the Philippines, Baguio City.

M. C. Camacho, G. Blantocas and I. Culaba (October 22-24, 2008). Investigation of the effects of hydrogen and oxygen glow discharge plasma treatment on copper-HDPS adhesion, 26th SPP Physics Congress, University of the Philippines, Baguio City.

H. S. Salapare III, G. Q. Blantocas, E. B. Lagsa, V. R. Noguera (October 22-24, 2008). Effects of low energy hydrogen ion shower (LEHIS) treatment on the optical and thickness properties of polytetrafluoroethylene (PTFE) materials, 26th SPP Physics Congress, University of the Philippines, Baguio City.

M. S. Villamayor, L. D. Rosario, C. Lim, A. Bañas (October 22-24, 2008). Synthesis of TiAlN on stainless steel substrate using a magnetized sheet plasma source, 26th SPP Physics Congress, University of the Philippines, Baguio City.

L. D. Rosario, C. Patacsil, A. Ulano, H. Lee Jr. M. Arciaga, R. Tumlos (October 22-24, 2008). Optical emission spectroscopy of microwave induced CO<sub>2</sub> plasma, 26th SPP

Physics Congress, University of the Philippines, Baguio City.

A. A. Lim, K. G. Pabelina and G. Blantocas (October 22-24, 2008). Surface modification of ophthalmic CR-39 polymer lenses by low energy hydrogen ion shower (LEHIS) treatment, 26th SPP Physics Congress, University of the Philippines, Baguio City.

C. S. Mahinay and M. S. Mahinay (October 22-24, 2008). Hydrogen ion implantation of acrylamidebis in gas discharge ion source plasma: investigation of conductivity using FTIR analysis, 26th SPP Physics Congress, University of the Philippines, Baguio City.

L. M. Lozada, J. b. Valenzuela (October 22-24, 2008). Hydrogen ion immersion implantation (HIII) of aged polyaniline-emeraldine film using glow discharge ion source (GDIS), 26th SPP Physics Congress, University of the Philippines, Baguio City.

H. V. Lee Jr., M. S. Villmayor, H. D. Barra (October 22-24, 2008). Simulation of ion trajectories in the enhancement of TiN deposition and TiCuN synthesis in a magnetized sheet plasma, 26th SPP Physics Congress, University of the Philippines, Baguio City.

M. S. Villamayor, A. M. Ulano, B. T. Suarez (October 22-24, 2008). Synthesis of titanium copper nitride films of Cu and SS substrates using a magnetized sheet plasma negative ion source, 26th SPP Physics Congress, University of the Philippines, Baguio City.

H. S. Salapare III, G. Q. Blantocas, V. R. Noguera (October 22-24, 2008). Fourier transform infrared spectroscopy (FTIR) characterization of low energy hydrogen ion shower (LEHIS) treatment of polytetrafluoroethylene (PTFE) materials, 26th SPP Physics Congress, University of the Philippines, Baguio City.

J. S. Ting, L. D. Rosario, A. M. Ulano, M. E. Arciaga, R. B. Tumlos (October 22-24, 2008). Adsorption of chromium (VI) for wastewater treatment by native sawdust, 26th SPP Physics Congress, University of the Philippines, Baguio City.

E. Osorio, L. D. Rosario, H. Lee, Jr., A. Ulano, M. Arciaga, R. Tumlos (October 22-24, 2008). Removal of methyl dye from aqueous solutions using coconut product sawdust by the process of adsorption, 26th SPP Physics Congress, University of the Philippines, Baguio City.

J. C. De Vero, W. O. Garcia, R. V. Sarmago (October 22-24, 2008). Effect of argon plasma pre-cleaning on thin film quality in the 1064 nm Nd:YAG pulsed laser ablation of Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8+δ</sub> on MgO substrate, 26th SPP Physics Congress, University of the Philippines, Baguio City.

J. C. De Vero, W. O. Garcia, R. V. Sarmago (October 22-24, 2008). Effect of argon plasma pre-cleaning on thin film quality in the 1064 nm Nd:YAG pulsed laser ablation of Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8+δ</sub> on MgO substrate, 26th SPP Physics Congress, University of the Philippines, Baguio City.

H. V. Lee Jr., R. B. Tumlos, M. E. Arciaga (October 22-24, 2008). Three dimensional simulation of electrons in a microwave-induced hexapole plasma device, 26th SPP Physics Congress, University of the Philippines, Baguio City.

N. Valmoria, A. Mendenilla, M. Yambot and M. Mena (October 22-24, 1999). Synthesis of ZrN film via the plasma sputter-type negative ion source, 17th Congress, Leyte Normal School, Tacloban City.

A. Mendenilla, A. Montecillo, G. Malapit, A. Ubarro and E. Estacio (October 22-24, 1999). Electron temperature effects of a shower cap electrode in a DC glow discharge, 17th Congress, Leyte Normal School, Tacloban City.

M. Yambot, A. Mendenilla, N. Valmoria and A. Garcia (October 22-24, 1999). Negative ion beam focusing in a plasma sputter-type negative ion source, 17th Congress, Leyte

Normal School, Tacloban City.

Y. Abate, P. Concepcion, R. Awayan, M. Arciaga, M. Macandog, L. Mejia, V. Noguerra and G. Cardinal (October 22-24, 1999). Enhanced negative ion production in volume ion source", 17th Congress, Leyte Normal School, Tacloban City.

M. Nishiura, M. Sasao, M. Wada, M. Hamabe, T. Kuroda and S. Guharay (October 22-24, 1999). Characteristics of a He<sup>+</sup> beam extracted from a compact multicusp ion source, 17th Congress, Leyte Normal School, Tacloban City.

M. Sasao, A. Taniike and M. Wada (October 21-23, 1995). Dev't. of ion source for the formation of high grade films, 13th Congress, MSU-Iligan Institute of Technology, Iligan City.

L. Bo-ot (October 21-23, 1995). Sputtering yield dependence on projectile energy and projectile-target combinations, 13th Congress, MSU-Iligan Institute of Technology, Iligan City.

(October 18- 20, 2010). Plasma physics and technology at the University of the Philippines, 3rd ASEAN-India Thermal Spray Project Cum Scientific Forum, Hotel Dominique, Tagaytay City, Philippines.

L. M. D. Rosario, R. P. B. Viloan, M. M. S. Villamayor, B. A. T. Suarez and R. B. Tumlos, (October 18- 20, 2010). Synthesis of multilayered titanium-based coatings via magnetron sputtering in magnetized sheet plasmas, 3rd ASEAN-India Thermal Spray Project Cum Scientific Forum, Hotel Dominique, Tagaytay City, Philippines.

K. Pabelina and C. Lumban (October 18- 20, 2010). Thermal degradation characteristics of flameretarded wood, 3rd ASEAN-India Thermal Spray Project Cum Scientific Forum, Hotel Dominique, Tagaytay City, Philippines.

H. S. Salapare III, G.Q. Blantocas and V.R. Noguera (October 18- 20, 2010). Reduced optical leakage of low energy hydrogen ion shower (LEHIS) treated polytetrafluoroethylene (PTFE) materials, 3rd ASEAN-India Thermal Spray Project Cum Scientific Forum, Hotel Dominique, Tagaytay City, Philippines.

J. K. C. D. Sanchez and J. Paningbatan (October 15-17, 1993). Characteristics of a magnetized sheet plasma produced by a hot cathode, 11th Congress, UP-Marine Science Institute, Bolinao, Pangasinan.

J. L. Munoz, R. T. Martinez and J. Aagsalon (October 15-17, 1993). Refractive index measurements of a plasma glow discharge, 11th Congress, UP-Marine Science Institute, Bolinao, Pangasinan.

R. Roma (October 15-17, 1993). Experimental investigation and characterization of a compact TEA molecular nitrogen laser, 11th Congress, UP-Marine Science Institute, Bolinao, Pangasinan.

(October 15-16, 1994). New developments in magnetic confinement fusion research, 12th Congress, De la Salle Univ., Manila.

J. K. C. D. Sanchez (October 15-16, 1994). Optimization of the extraction of H<sup>-</sup> ions in a magnetized sheet plasma, 12th Congress, De la Salle Univ., Manila.

(November 21, 1998). Ion sources and their applications to thin films, Physics Research Forum, Mindanao State University. Gen. Santos City.

K. Pabelina, J. R. Guhit, C. F. Romero and J. A. Daseco (November 14-18, 2010). Optical emission spectroscopy studies on the efficacy of nitrogen addition to boric acid as flame retardant on wood, 11th Asia Pacific Physics Conference, Shanghai Everbright

Convention and Exhibition Center International Hotel, Shanghai, China,

L.M.D. Rosario, K.G. Pabeliña, R.P.B. Viloan and R.B. Tumlos (November 14-18, 2010). Optimization of magnetron sputtering in a magnetized sheet plasma for the deposition of multilayered Ti/TiN films, 11th Asia Pacific Physics Conference, Shanghai Everbright Convention and Exhibition Center International Hotel, Shanghai, China.

P. E. R. Mateum, R. W. M. Orille, R. J. U. Ramos, R. Miranda, J. L. C. Monasterial and L. M. T. Bo-ot (Nov 21- 24, 2005). Modification of Properties of Philippine Wood by Plasma Processing, Green Building International Conference, Taipei, Taiwan.

(May 17-19, 1985). Design considerations of an optical system for plasma spectroscopy, 5TH Congress, Univ. of San Carlos, Cebu City.

(May 7-12, 2000). Present status of the surface modification and thin film formation technologies in the Philippines, Abstracts of the Regional Meeting on Plasma Research in the 21st Century, Bangkok.

(May 5-7, 1989). Pre-discharge characteristics of the NIP negative ion source, 8th Congress, UP College Baguio, Baguio City.

R. C. Cannen, J. C. Villena and R. Pascual (May 3-5, 1988). The NIP glow discharge facility, 7th Congress, UP Los Banos, Laguna.

(May 3-5, 1988). A mass spectrometer for analyzing ions, 7th Congress, UP Los Banos, Laguna.

(May 3-5, 1988). Physics of volume plasma H<sup>-</sup> ion source, 7th Congress, UP Los Banos, Laguna.

(May 22-24, 1987). A combined electrode system for an ideal axial magnetic field distribution in plasmas, 6th Congress, UP College Baguio, Baguio City.

(May 1999). Report of External Evaluation: Physics Development Project, University of San Carlos.

M. Sasao, H. Yamaoka and M. Wada (May 1989). Effect of Converter Electrode in a Multicusp Negative Ion Source, Institute of Plasma Physics, Nagoya University Research Report IPPJ 914.

J. Lubguban, Jr (May 15-17, 1996). Growth of amorphous carbon, diamond-like carbon, and diamond films via plasma-enhanced and hot-filament chemical vapor deposition, Second Iligan National Conf. on Theoretical and Exp'tal. Physics.

(May 15-17, 1990). Discharge characteristics of the NIP negative ion source, 9th Congress, UP-NSRI, Quezon City.

R. Martinez, D. Yglopaz, F. A. Bacalzo, C. Villagonzalo, M. Cairo and L. Africa (May 11-13, 1991). Gaseous breakdown phenomena in the NIP glow discharge facility, 10th Congress, Ateneo de Manila University, Quezon City.

(March, 2004). Prototype Plasma Devices for Industrial Applications, Philippine Council for Advanced Science and Technology Research and Development, Department of Science and Technology Project.

N.B. Valmoria and M. Mena (March 8, 2000). Surface Modification and Thin Film Technologies Using Plasmas, 1999 Symp. in High-Tech Research Center of Doshisha University, Nano Structure Hybrid Devices and Their Properties, Kyoto.

M. Sasao, M. Nishiura, S. K. Guharay, T. Kuroda, M. Hamabe, and M. Wada (March 29-April 2, 1999). Characteristics of Helium Ion Beams from Multicusp Source and Study of

Beam Transport, Proc. Particle and Accelerator Conference 1999, New York.

N. Valmoria and M. G. Mena (June 26-30, 2000). Synthesis of ZrN film via the Plasmaspitter-type Negative Ion Source, 7th Asia-Pacific Electron Microscopy Conference (Physical Sciences).

T. Kasuya, H. Oomori and M.Wada (June 22-26, 1998). "Selective ion formation in a multi14 14 cusp sputtering device, IEEE Proc. XIIIth International Conference on Ion Implantation Technology.

T. Kasuya, H. Oomori and M.Wada (June 22-26, 1998). Selective ion formation in a multicusp sputtering device, IEEE Proc. XIIIth International Conference on Ion Implantation Technology.

K . Kadota and H. Matsuoka (June 1-3, 1984). Combined neutral beam probe and laser-induced fluorescence for plasma diagnostics, 3rd Congress, Jesuit Retreat House, Angono. Rizal.

A. Yap and I. Oconer (July 8-9, 1999). Formation of Titanium Nitride (TiN) Thin Film on Steel Using the NIP-PPL's Plasma Sputter-Type Negative Ion Beam Facility, 9th ASEMEP National Technical Symposium, Manila.

J. K. C. D. Sanchez (July 4-8, 1994). Characteristics of a magnetized sheet plasma produced by a hot cathode, Abstracts of the 6th Asia Pacific Physics Conf., Brisbane, Australia.

H. Yamaoka, M. Sasao and M. Wada (July 1988). Development of the Work Function Monitoring Method for a Converter of a Negative Ion Source, Institute of Plasma Physics, Nagoya University Research Report IPPJ 880.

V. R. Noguera (July 1-4, 2002). "Production efficiency of H- ions from a magnetized sheet plasma source, Abstracts of the Joint International Plasma Symposium of 6th Asia Pacific Conference on Plasma Science and Technology (APCPST), 15th Symposium on Plasma Science for Materials (SPSM), 4th International Conference on Open Magnetic Systems for Plasma Confinement (OS 2002) and 11th Korea Accelerator and Plasma Research Association (KAPRA).

A. Mendenilla, and M. Yambot (January 31- February 1, 2002). Metal Ions from Surface Productiontype Multicusp Negative Ion Source, Abstracts of the International Workshop on Particle Beams and Plasma Interaction on Materials, Chiang Mai, Thailand.

(February 23-26, 1999). Tertiary Physics Education in the Philippines, ASPEN Workshop on Physics Curriculum Design and Content, Vientiane.

(February 23-26, 1999). Tertiary Physics Education in the Philippines, ASPEN Workshop on Physics Curriculum Design and Content, Vientiane.

(December 9, 1998). Social issues in relation to science, Science Forum sponsored by the PNU-DOST Scholar's Association, Philippine Normal University, Manila.

J. L. C. Monasterial, G. Q. Blantocas, P. E. R. Mateum, R. W. M. Orille, R. J. U. Ramos, and L. M. T. Bo-ot (December 8-11, 2005,). Plasma processing of wood, 4th Asia- Pacific International Symposium on the Basics and Applications of Plasma Technology: Cebu Workshop.

M. M. S. Villamayor, T. Nakajima, Ramos, M. Wada (December 7-10, 2010). Plasma optical emission signatures and TiO<sub>2</sub> deposition using the dual planar magnetron, 20th International Toki Conference (ITC20) in the Next Twenty Years in Plasma and Fusion Science, Ceratopia, Toki, Gifu, Japan.

L.M.D. Rosario, R.P.B. Viloan, B.A.T. Suarez, M.M.S. Villamayor and R.B. Tumlos (December 7-10, 2010). Simultaneous growth of diamond-like carbon and nanorods via magnetron sputtering in a magnetized sheet plasma, 20th International Toki Conference (ITC20) in the Next Twenty Years in Plasma and Fusion Science, Ceratopia, Toki, Gifu, Japan.

H.S. Salapare III, G.Q. Blantocas, W.L. Rivera, V.A. Ong and R.S. Hipolito (December 7-10, 2010). Anti-bacterial property of hydrogen-ion and oxygen-ion treated polytetrafluoroethylene (PTFE) materials, 20th International Toki Conference (ITC20) in the Next Twenty Years in Plasma and Fusion Science, Ceratopia, Toki, Gifu, Japan.

H.S. Salapare III, G.Q. Blantocas, A.R.B. Gines, M.B.P. Villanueva, J. M. R. Salamania (December 7-10, 2010). Surface free energy effects of low-energy hydrogen and oxygen ions on polytetrafluoroethylene (PTFE) materials, 20th International Toki Conference (ITC20) in the Next Twenty Years in Plasma and Fusion Science, Ceratopia, Toki, Gifu, Japan.

B. A. T. Suarez, M. M. S. Villamayor and V. R. Noguera (December 7-10, 2010). Selective coating deposition of solar thermal collectors on aluminum and copper samples using the magnetized sheet plasma negative ion source, 20th International Toki Conference (ITC20) in the Next Twenty Years in Plasma and Fusion Science, Ceratopia, Toki, Gifu, Japan.

(December 6-8, 1996). Report on Physics R&D at the National Institute of Physics, 14th Congress, UP-ISMED, Quezon City.

A. Mendenilla and J. Lubguban (December 6-8, 1996). Growth of diamond films on Si(100) substrates via the hot filament chemical vapor deposition, 14th Congress, UP-ISMED, Quezon City.

J. Labis and R. Awayan (December 6-8, 1996). Formation of TiN on metal substrates using a magnetized sheet plasma, 14th Congress, UP-ISMED, Quezon City.

(December 4, 1998). Physics research in the Philippines, Science Forum sponsored by Western Visayas College of Science and Technology, La Paz. Iloilo City.

(December 3-4, 1998). Survey of Philippine physics: beginnings, updates and future directions, 47th Annual Convention of the Philippine Association for the Advancement of Science, Traders Hotel, Manila.

J. Lubguban, Jr (Dec. 11-15, 1995). Plasma enhanced CVD using a dc source, Joint Japan-Phil. Workshop on Plasma Production and Industrial Applications, J. Fujita and H. J. Ramos (eds.), STTC-ISMED, UP Diliman, Quezon City, Philippines.

L. Bo-ot, G. Blantocas and C.M. Chiang (Dec 3- 5 2007). Statistical considerations of experimental results of LEHIS treated wood, Sustainable Building Conference.

K. G. Pabelina and C. O. Lumban (August 23-27, 2010.). Plasma impregnation of wood with fire retardants, 17th International Conference on Ion Beam Modification of Materials, Marche Bonsecours, Montreal, Canada.

A. Mendenilla, C. M. Blanca, I. Oconer and A. Yap (August 2-6, 1999). Development of Sputter-type Negative Ion Source for Plasma Applications, 14th International Symposium on Plasma Chemistry, M. Hrabovsky, M. Konrad, and V. Kopecky (eds.),.

J. Lubguban, Jr. (August 19-23, 1997). Amorphous carbon, diamond-like carbon and diamond films via plasma-enhanced and hot filament chemical vapor deposition : a comparative study, 7th Asia Pacific Physics Conference, Beijing ,China.

H. Yamaoka, M. Sasao, M. Wada (April 5-6, 1988). Development of monitoring method

for the work function on the converter surface in a negative ion source plasma, Symp. on Negative Ion Sources and Their Applications, National Laboratory for High Energy Physics, Tsukuba.

J. K. C. D. Sanchez (April 21-22, 1995). Development of ion sources for industrial applications, First Iligan National Science Conf. on Theoretical and Exp'tal. Physics.

J. Lubguban, Jr (9-10 July 1997). Synthesis of diamond by plasma-enhanced and hot-filament chemical vapor deposition, Abstracts of the 19th Annual Scientific Meeting of the National Academy of Science and Technology.

Darwin B. Putungan, Henry J. Ramos, Alexandra B. Santos and Marvin A. Albao, (2010 O 25-27). Analysis of In Situ and In vivo Surface Morphology of Ga 1D Nanowires on Si(100): A Kinetic Monte Carlo Study, 28th SPP (Physics Society of the Philippines) Physics Congress, Antipolo City.

Putungan, D.B., Ramos, H.J., Santos, A.B., Albao, M.A. (2010 O 25-27). Ordering Correlation Function Implementation for Ordering Analysis of 1D Nanowires Simulated via Kinetic Monte Carlo Method, 28th SPP (Physics Society of the Philippines) Physics Congress, Antipolo City.

(2007). Gas discharge ion source applications in IC packaging, Proc. Intel Asia Academic Forum.

(1998). Development of sputter-type negative ion source for plasma applications, Terminal Report of UP-ORC Project No. 09714-Ns.

C. Villagonzalo (1994). Production and characterization of polycrystalline carbon films by plasma-enhanced CVD, Int'l. Conf. on Physics and Technol. in the 1990s, C. Bernido, et. al. (eds.) Samahang Pisika ng Pilipinas.

(1994). Review of progress of negative ion sources, 5th Asia Pacific Physics Conf., Kuala Lumpur 1.

(1990). Physics of negative ion sources, Regional College on Plasma Applications, C. Silawatshanantai (ed.), Prince of Songkla Univ..

(1990). Characteristics of a Plasma for Negative Ion Source, Ph.D. Thesis, Univ. of the Philippines, Diliman.

(1990). Effective Extraction Mechanism of Volume Produced Ions in NIPPER I, UP-ORC IOB Research Grant RA No. 01 Ns, Series 1990 Terminal Report..

(1989). Plasma Device for Basic Studies, TWAS Research Grant 87-18, Terminal Report.

(1989). Plasma Device for Basic Studies, TWAS Research Grant 87-18, Terminal Report.

(1988). Design and construction of a high current ion source for basic plasma studies, Symp. on Small Scale Laboratory Plasma Experiments, ICTP, Trieste, S. Lee and P. Sakanaka (eds.), World Scientific.

(1978). A Study of the Diagnostics of Hydrogen Plasmas, M. S. Thesis, The Flinders University of South Australia.

Y. Abate (). Optimization and enhancement of H<sup>-</sup> production in magnetized sheet plasma source, *ibid.*

N. Valmoria (). Thin film deposition of ZrN using plasma sputter-type negative ion source, *ibid.*

A. Mendenilla and C. M. Blanca (). Transverse profile analysis of a plasma sputter-type

ion source, *ibid.*.

V. R. Noguera (). Second derivative of Langmuir probe traces for particle temperature measurements in a magnetized sheet plasma source, *ibid.*

V. R. Noguera (). Production efficiency of H<sup>-</sup> ions from a magnetized sheet plasma source, *ibid.*

M. G. Cardinal (). Enhancement of negative hydrogen ions with Xe in a magnetized sheet plasma, *ibid.*

J. Labis (). Synthesis of TiN using a magnetized sheet plasma, *ibid.*

J. Labis (). Formation of TiN on metal substrates using a magnetized sheet plasma, *ibid.*

(.). Plasma Device for Basic Studies and Industrial Applications, NRCP Project I-24 Terminal Report.

## Publications

- 2014 J.-A. B. Aleño and W. I. Jose Determination of properties of yarns made from water hyacinth and pineapple indigenous fibers treated using plasma enhanced chemical vapor deposition 66(PECVD) 5th International Conference on Chemical, Ecology and Environmental Sciences, January 2014.
- 2014 M. S. Fernandez, K. Doi, G. M. Malapit, M. M. S. Villamayor and M. Wada Performance of plasma cathode for a magnetized sheet plasma device. 12th Asia Pacific Physics Conference, JPS Conf. Proc, 2014.
- 2014 M. M. S. Villamayor, S. Kato, M. N. Soriano and M. Wada Color-based tracking of plasma dust particles. Phys. Plasmas 21, 2014.
- 2014 J. A. S. Ting , L. M. D. Rosario, H. V. Lee Jr., R. B. Tumlos, R. V. Fischer Studies on the use of the coaxial plasma bulb for enhanced wettability of aluminum and polymethylmethacrylate surfaces. Vacuum 103, 2014.
- 2014 K. G. Pabeliña, J. P. Hortezueta, R. M. P. Fallesgon Wettability of plasma-treated fibers of Anahaw (*Livistona rotundifolia*), Buri (*Corypha elata*) and Pandan (*Pandanus amaryllifolius*). Advanced Materials Research 894, 2014.
- 2014 J. J. Monserate, F. C. Sumera, J. A. Daseco and K. G. Pabeliña Surface characterization of Argon plasma treated electrospun P(HOLA-e-CL) clay nanocomposite. International Journal of Agricultural Technology 10, 2014.
- 2014 M.M.S.Villamayor, Y.Hiramatsu and M.Wada Transparent ZnO thin film deposition by a compact planar magnetron plasma device. Jpn. J. Appl. Phys. 53, 2014.
- 2014 K. Doi<sup>2</sup>, M. S. Fernandez, G. M. Malapit, M. Sasao, M. M. S. Villamayor and M. Wada Sheet Plasma Configurations Suitable for Materials Processing. JPS Conf. Proc. 1, 2014.
- 2014 M. A. J. Viernes, C. L. S. Mahinay and M. M. S. Villamayor Photo response of silver-TiO<sub>2</sub> film. Review of Scientific Instruments 85, 2014.
- 2014 G. M. Malapit, J. I. L. Bugante, C. L. S. Mahinay and M. Wada Effects of negative Ag ion on the surface of (200) single-crystalline MgO substrates. JPS Conf. Proc, 2014.
- 2013 M. M. S. Villamayor, L. M. D. Rosario, R. P. B. Viloan, M. C. C. Lacdan, J. A. S. Ting, B. A. T. Suarez, S. Kato, R. B. Tumlos, M. N. Soriano and M. Wada Observation of plasma-facing- wall via high dynamic range imaging. Plasma and Fusion Research:

Regular Articles 8, 2013.

- 2013 M. M. S. Villamayor, K. Doi, E. M. D. Cruz, F. G. J. Avenir and M. Wada A compact planar magnetron plasma sputtering device for TiO<sub>2</sub> deposition. *MRS Proceedings* 1601, 2013.
- 2013 M. A. C. Camacho Comparative analysis of the surface functionalization and texturization of HDPE after H<sub>2</sub> and O<sub>2</sub> ion plasma immersion. *Advanced Materials Research* 664, 2013.
- 2013 J. A. S. Ting, L. M. D. Rosario, M. C. C. Lacdan, H. V. Lee, Jr., J. C. de Vero and R. B. Tumlos Enhanced adhesion of epoxy-bonded steel surfaces using O<sub>2</sub>/Ar microwave plasma treatment. *Intl. J. of Adhesion and Adhesives* 40, 2013.
- 2013 H.S. Salapare III, M.G.J.P. Tiquio Superhydrophilic properties of plasma-treated *Posidonia oceanica*. *Applied Surface Science* 273, 2013.
- 2013 H.S. Salapare III, F. Guittard, X. Noblin, E. Taffin de Givenchy, F. Celestini Stability of the hydrophilic and superhydrophobic properties of oxygen plasmatreated poly(tetrafluoroethylene) surfaces. *Journal of Colloid and Interface Science* 396, 2013.
- 2012 M. N. Acda, E. E. Devera, R. J. Cabangon and K. G. Pabelina Effects of dielectric barrier discharge plasma modification on surface properties of tropical hardwoods at low pressure. *Journal of Tropical Forest Science* 24, 2012.
- 2012 Karel G. Pabeliña and Carmencita O. Lumban Plasma impregnation of wood with fire retardants. *Nuclear Instruments and Methods in Physics Research B* 272, 2012.
- 2012 L. Jirkovsky, L.Ma. Bo-ot and A. Muriel Time development of two and threedimensional self-gravitating system using initial Dirac delta function distribution. *Physica A* 391, 2012.
- 2012 Giovanni M. Malapit, Christian Lorenz S. Mahinay and Matthew D. Poral Electrostatic energy analyzer measurements of low energy zirconium beam parameters in a plasma sputter-type negative ion source. *Rev. Sci. Instrum.* 83, 2012.
- 2011 H. M. D. Barra Deposition rate and energy enhancements of TiN thin-film in a magnetized sheet plasma source. *World Academy of Science, Engineering and Technology* 5, 2011.
- 2011 D. B. Putungan, F.-C. Chuang and M. A. Albao Modeling of codeposition of indium and tin on silicon (100) : a kinetic Monte Carlo study. *Int. J. Of Modern Phys. B.* 25, 2011.
- 2011 R. Tumlos, J. Ting, E. Osorio, L. Rosario, A. Ulano, H. Lee, G. Regalado Results of the study of chemical-, vacuum drying- and plasma-pretreatment of coconut (*Cocos nucifera*) lumber sawdust for the adsorption of methyl red in water solution. *Surface and Coatings Technol.* 205, 2011.
- 2011 M. M. S. Villamayor, T. Nakajima, and M. Wada Optical emission signatures of dual planar magnetron plasmas for TiO<sub>2</sub> deposition. *Plasma and Fusion Research* 6, 2011.
- 2011 H. S. Salapare III, G. Q. Blantocas, W. L. Rivera, V. A. Ong and R. S. Hipolito Anti-bacterial property of hydrogen-ion and oxygen-ion treated polytetrafluoroethylene (PTFE) materials. *Plasma and Fusion Research* 6, 2011.
- 2010 M. M. S. Villamayor, J. A. Malinao, V. R. Noguera 3D Isosurface Visualization of Electron Density and Temperature Distribution in a Magnetized Sheet Plasma Ion Source. *Plasma and Fusion Research* 5, 2010.
- 2010 J. A. S. Ting, L. M. D. Rosario, A. M. Ulano, H. V. Lee, Jr, R. Lledo and R. B. Tumlos Enhancement of chromium (IV) removal by pre-treatments of cocolumber (*Cocos*

- nucifera) sawdust: vacuum drying and plasma treatments. *World Applied Science Journal* 8, 2010.
- 2009 H. S. Salapare III, G. Q. Blantocas, V. R. Noguera The porosity and wettability properties of hydrogen ion treated polytetrafluoroethylene. *Contact Angle, Wettability, and Adhesion*, Volume 6, 2009.
- 2008 H. S. Salapare III, G. Q. Blantocas and V. R. Noguera Low-energy hydrogen ion shower (LEHIS) treatment of polytetrafluoroethylene (PTFE) materials. *Applied Surface Science* 255, 2008.
- 2008 M. S. Fernandez, G. Q. Blantocas Formation of silicon hydride using hyperthermal negative hydrogen ions (H-) extracted from an argon-seeded sheet plasma source. *Nuclear Instrum. Methods B* 266, 2008.
- 2008 M. Arciaga, R. Tumlos, A. Ulano, H. Lee, Jr. and R. Lledo Development of a simple 2.45 GHz microwave plasma with a repulsive double hexapole configuration. *Review Scientific Instruments* 79, 2008.
- 2008 V. R. Noguera and G. Q. Blantocas Optimized H- extraction in an argon-magnesium seeded magnetized sheet plasma. *Nuclear Instrum. Methods B* 266, 2008.
- 2008 V. R. Noguera Volume generation of H- ions in a magnetized sheet plasma source. *IEEE Transactions on Plasma Science*, 36, 2008.
- 2007 G. Q. Blantocas, P. E. R. Mateum, R. W. M. Orille, R. J. U. Ramos, J. L. C. Monasterial, L. M. T. Bo-ot Inhibited flammability and surface inactivation of wood irradiated by low energy hydrogen ion showers (LEHIS). *Nuclear Instrum. Methods B* 259, 2007.
- 2006 G. Q. Blantocas and M. Wada Surface modification of narra wood (*Pterocarpus Indicus*) by ion shower treatment. *Japanese Journal of Applied Physics* 45, 2006.
- 2006 G. Q. Blantocas and M. Wada An investigation as to the cause of beam asymmetry in a compact gas discharge ion source: a focus on beam-wall interaction. *Japanese Journal of Applied Physics* 45, 2006.
- 2006 R. E. Flauta, M. R. Vasquez, Jr. and M. Wada Effect of surface and growth conditions for the formation of textured polycrystalline GaN crystals by reactive N<sub>2</sub> plasma. *Japanese Journal of Applied Physics* 45, 2006.
- 2006 V. R. Noguera A magnetized sheet plasma source for the synthesis of TiN on stainless steel substrates. *Thin Solid Films* 506-507, 2006.
- 2006 J. L. C. Monasterial and G. Q. Blantocas Effect of low energy ion beam irradiation on wettability of narra (*Pterocarpus indicus*) wood chips. *Nuclear Instrum. Methods B* 242, 2006.
- 2006 C. P. Patacsil and G. M. Malapit Optical emission spectroscopy of low temperature CVD diamond. *J. Plasma Fusion Res. SERIES*, Vol. 7, 2006.
- 2005 P. H. Pineda and M. A. T Siringan Inactivation and destruction of *Bacillus subtilis* using a low pressure glow discharge plasma. *Solid State Phenomena* 107, 2005.
- 2004 G. Q. Blantocas and M. Wada Design and operational characteristics of a cast steel mass spectrometer. *Rev. Sci. Instrum.* 75, 2004.
- 2004 N. B. Valmoria In film deposition of ZrN using a plasma sputter-type negative ion source. *Vacuum* 73, 2004.
- 2004 M. E. Arciaga, A. G. Mendenilla Characteristics of an ExB probe for extraction of H- ions

- from a magnetized sheet plasma source. *Rev. Sci. Instrum*, 2004.
- 2004 Y. D. M. Ponce, J. S. Lazarte Effect of wall material on H<sup>-</sup> production in a plasma sputter-type ion source. *Science Diliman* 16, 2004.
- 2004 L. M. M. Villorente and V. R. Noguera Effect of cesium seeding on the production of H<sup>-</sup> ions in a magnetized sheet plasma source. *Science Diliman* 16, 2004.
- 2003 M. E. Arciaga, T. Kasuya, A. G. Mendenilla and M. Wada Electron emission characteristics of high temperature discharge cathodes in magnetized plasmas. *The Science and Engineering Review of Doshisha University*, 2003.
- 2002 G. Q. Blantocas and M. Wada Extraction and profile analysis of hydrogen-like helium ions in a magnetized sheet plasma. *Rev. of Sci. Instrum*, 2002.
- 2002 G. Q. Blantocas and M. Wada Extraction and profile analysis of hydrogen-like helium ions in a magnetized sheet plasma. *Rev. of Sci. Instrum*, 2002.
- 2002 R. Awayan Nitride Formation Using a Magnetized Sheet Plasma Source. *Vacuum* 65, 2002.
- 2002 G. Q. Blantocas and M. Wada A computational model for He<sup>+</sup> ions in a magnetized sheet plasma: comparative analysis between model and experimental data. *J. Plasma Fusion Res. SERIES*, 2002.
- 2001 Y. Abate, M. Arciaga Density measurements of negative hydrogen ions using mass spectrometer. *Science Diliman* 13, 2001.
- 2000 Y. Abate Optimization and enhancement of H<sup>-</sup> ion production in a magnetized sheet plasma source. *Rev. Sci. Instrum.* 71, 2000.
- 1999 M. Yambot, A. Mendenilla, N. Valmoria and A. Garcia Negative Ion Beam Focusing in a Plasma Sputter-type Negative Ion Source. *ibid* 11, 1999.
- 1998 A. Mendenilla and C. M. Blanca Transverse beam profile analysis of a plasma sputter-ion source. *Science Diliman* 10, 1998.
- 1996 J. K. C. D. Sanchez Extraction characteristics of H<sup>-</sup> ions in a magnetized sheet plasma. *Plasma Sources Sci. Technol*, 1996.
- 1996 R. Roma Experimental investigation of a compact pulsed TEA molecular nitrogen laser. *Phil. J. of Science* 125, 1996.
- 1996 J. P. Labis Determination of energy width for negative ions in a magnetized sheet plasma. *UPV J. Nat. Sci.* 1, 1996.
- 1993 Effective extraction mechanism of volume-produced ions in the NIPPER I device. *Science Diliman* 5, 1993.
- 1990 M. Sasao, Y. Okabe, J. Fujita, M. Wada and H. Yamaoka Correlation of surface production of negative ions and the work function measured by laser-induced photoelectron current. *Review of Scientific Instruments*, 1990.
- 1989 H. Yamaoka, M. Sasao and M. Wada A real time method for monitoring the work function of a surface conversion negative ion source. *Nuclear Instruments and Methods in Physics Research*, 1989.
- 1988 Physics of a volume plasma H<sup>-</sup> ion source. *Natural and Applied Science Bull*, 1988.
- 1984 K. Kadota, H. Matsuoka, S. Miyake, K. Tsuchida, J. Fujita, T. Usui and T. Oda, Neutral beam probe spectroscopy for edge plasma diagnostics. *J. Nuclear Materials*, 1984.

- 1984 E. Reyes An outdoor test facility for flat-plate solar collectors. The Phil. Eng. Journal V, 1984.
- 1983 Laser interferometer for plasma diagnostics. Diwang Pisika 3, 1983.
- 1981 DVM reader for plasma diagnostics. Phil. J. of Science 110, 1981.
- G. Blantocas A focus on streaming instability as a probable cause of dispersion in the sheet plasma negative ion source. ibid 44, .

**Name** Cristine de los reyes Villagonzalo

**Gender** Female

**Civil Status** Single

**Organizational Affiliations**

Associate Professor (Rank IV), National Institute of Physics, College of Science, University of the Philippines Diliman, Quezon City 1101, Philippines

UP Scientist I, National Institute of Physics, College of Science, University of the Philippines Diliman, Quezon City 1101, Philippines

**Education**

Doctoral Degree in Theoretical Physics, Technische Universität Chemnitz, Chemnitz, Germany 2001

Postgraduate Diploma Programme, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy 1997

Master of Science (Physics), University of the Philippines (U.P.), Diliman, Quezon City, Philippines 1995

Bachelor of Science in Physics, University of the Philippines (U.P.), Diliman, Quezon City, Philippines 1992

**Employment**

Ph.D. full time faculty member, National Institute of Physics (NIP), Nov. 2002-present

Research Program Coordinator, Structure and Dynamics Group, NIP, Jan. 2003-May 2013

Served as referee, Samahang Pisika ng Pilipinas (SPP) [Physics Society of the Philippines], 2011-2003

Served as referee, ISI Journals: Physica B, European Physics Letters, Journal of Low Temperature Physics, 2011-2012

Philippines' Team Leader, IUPAP Women in Physics, 2008-2009

Associate Editor, Science Diliman, University of the Philippines Diliman, Sept. 2007-Dec. 2009

Secretary General, Samahang Pisika ng Pilipinas, Jan. 2005-Dec. 2006

Program Development Associate, Office of the Vice Chancellor for Academic Affairs (OVCAA), July 1, 2014-present

Member, University Council Committee on Extension Services, 2012-Present

Director, Office of Extension Coordination OVCAA, June 1, 2011-May 31, 2014

Officerincharge, OVCAA, May 14 2013-May 28 2013

Program Development Associate, Emerging Fields in Science and Technology, Office of the Vice President for Academic Affairs (OVCAA), Aug. 2006-Jan. 31, 2011

Officerincharge, Office of the Associate Dean for Academic Affairs, College of Science, April 25, 2011-May 31, 2011

Member, NIP Graduate Admission Testing Committee, 2010-present

Member, NIP Executive Council and NIP Graduate Committee, 2003-Present

Secretary, NIP Executive Council, 2003-2009

## Researches

### Completed

Calculation of the magnetization and thermoelectric properties of two dimensional electron systems

Laboratory Support for the Ph.D

Modelling of Low Dimensional Magnetic Spin Systems

Febased Superlattices: Influence of Structure on Its Magnetic Properties

Investigation of Heat Conduction in Multilayer Structures

Thermal Conduction of Multilayer Structures

## Publications

- 2009 J. Bornales and J. G. BetoyaNonesa Women in Physics in the Philippines: Quantized in Number, Yet Making Small Definite Steps Toward A Mature Science Culture. AIP Conference Proceedings Vol. 119, The 3rd IUPAP International Conference on Women in Physics, Seoul, Korea, April 2009.
- 2014 C. Baldo III Spinorbit coupled transport in a curved quantum wire. Physica E, 2014.
- 2013 R. Gammag Twodimensional electron gas tiltinduced Landau level crossings. Solid State Communications, 2013.
- 2012 R. Gammag Quenching of the DOS beats in twodimensional electron gas in tilted magnetic fields. Solid State Communications, 2012.
- 2012 R. Gammag Persistent spinsplitting of a twodimensional electron gas in tilted magnetic fields. European Physics Journal B, 2012.
- 2012 C. Baldo III Lowlying spin excitations due to nextnearest neighbour interactions in a ferromagnetic lattice with a bodycentred cubic (bcc) crystal structure. Journal of Physics: Conference Series 400, 2012.
- 2012 R. Gammag The interplay of Rashba spinorbit interaction and Landau level broadening on a twodimensional electron gas under a tilted magnetic field. Journal of Physics: Conference Series 400, 2012.
- 2011 R. Gammag The intrinsic features of the specific heat at halffilled Landau levels of twodimensional electron systems. Journal of Low Temperature Physics, 2011.
- 2008 R. Gammag The interplay of Landau level broadening and temperature on twodimensional electron systems. Solid State Communications, 2008.
- 2003 R.A. Romer and A. MacKinnon Thermoelectric properties of disordered systems. Journal of the Physical Socety of Japan 72 Supplement A, 2003.
- 2000 R.A. Romer, M. Schreiber and A. MacKinnon Behavior of the thermopower in amorphous materials at the metalinsulator transition. Physical Review B 62, 2000.
- 1999 R.A. Romer and M. Schreiber Transport properties near the Anderson transition. Annalen der Physik (Leipzig) 8, 1999.

- 1999 R.A. Romer and M. Schreiber Thermoelectric transport properties in disordered systems near the Anderson transition. *European Physics Journal B* 12, 1999.
- 1998 R.A. Romer and M. Schreiber Low temperature behavior of the thermopower in disordered systems near the Anderson Transition. *Annalen der Physik (Leipzig)* 7, 1998.

## Specialization Index

### Agriculture

Escobin, Ramiro P.

### Analytical approximation schemes for fractional dynamics, oscillator systems and quantum systems

Esguerra, Jose Perico

### Biodiversity Conservation

Diesmos, Arvin C.

### Biogeography

Diesmos, Arvin C.

### Biological Control

Navasero, Mario V.

### Biological Sciences

Navasero, Marcela M.

### Botany

Escobin, Ramiro P.

### Computational physics

Galapon, Eric Alvarez

### Ecology

Diesmos, Arvin C.

### Entomology

Navasero, Mario V.

### Environmental Chemistry and Ecotoxicology

Prudente, Maricar S.

### Environmental Education and Science Education

Prudente, Maricar S.

### Environmental Pollution

Prudente, Maricar S.

### Forestry

Escobin, Ramiro P.

### Foundations and applications of quantum mechanics

Galapon, Eric Alvarez

### Insect Systematics

Navasero, Mario V.

### Mathematical Physics

Esguerra, Jose Perico

Optics & Optoelectronics  
Almoro, Percival F.

Physics  
Galapon, Eric Alvarez

Statistical mechanics  
Esguerra, Jose Perico

Wood Science and Technology  
Alipon, Marina A.

Zoology  
Diesmos, Arvin C.