



**UNIVERSITY OF THE PHILIPPINES
BAGUIO**
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CURRICULUM VITAE

Assistant Professor Andrei A. Domogo, Ph.D.

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Contact Number: +639682643340
Research Interest/Discipline: **Mathematical Modeling,
Cardiovascular Models, Differential Equations,
Equivariant Dynamical Systems**



Educational Background

Duration:	August 2017 - January 2022
Degree:	PhD Mathematics
University:	University of the Philippines Baguio
Dissertation or Thesis Title:	"Patient-Specific Parameter Estimation: Coupling Mechanistic Models of Blood Flow in the Heart and in the Intracranial Cavity with Data"
Awards and Distinction Received:	CHED Scholarship and UP FRASDP Grant
Duration:	November 2009 - April 2013
Degree:	MS Mathematics
University:	University of the Philippines Baguio
Dissertation or Thesis Title:	"Symmetry-Breaking Bifurcations in Delay-Coupled Lasers with Unidirectional Coupling"
Awards and Distinction Received:	CHED Scholarship
Duration:	June 2002 - April 2006
Degree:	BS Mathematics
University:	University of the Philippines Baguio

Work Experience

Duration:	January 2009 - present
Position/Designation:	Assistant Professor VI (February 2022 - present) Assistant Professor IV (January 2019 - January 2022) Assistant Professor I (November 2013 - December 2018) Instructor I (November 2011 - October 2013) Lecturer I (June 2009 - October 2011)
Employer:	University of the Philippines Baguio

Other Designations/Committees while Affiliated with UP Baguio

Duration	Designation/ Committee
September 2022 - August 2024	Member, Department Academic and Personnel Committee
September 2022 - August 2023	Member, Native Plants Committee
March 2022 - present	Director, Ugnayan ng Pahinungod Office
November 2013 - July 2017	Member, Department Academic and Personnel Committee
June 2013 - May 2017	Member, Program for Indigenous Culture
June 2013 - May 2017	Member, Native Plants Committee
June 2015 - May 2017	Member, Committee on Culture and the Arts
June 2014 - July 2016	Coordinator, Learning Resource Center
June 2013 - May 2014	Coordinator, Reserve Officers' Training Corps
June 2011 - May 2012	Chair, Advanced Placement Exam in Math 11 and Math 14 Committee
June 2010 - May 2011	Facilitator, National Service Training Program
November 2010 - May 2011	Member, Kasarian
November 2010 - May 2011	Member, Faculty Evaluation Committee
November 2010 - May 2011	Member, Advanced Placement Exam in Math 11 and Math 14 Committee

Research Projects/ Research Involvements/Patents

Duration	Research Project/Patent Details
September 2015 – August 2016	Title: An Epidemic Model of the Trend of Dengue Incidence in Baguio City from 2004 - 2013 Position: Project Leader Funding agency: Cordillera Studies Center, University of the Philippines Baguio

List of Publications (Books, Journals, Proceedings, etc.)

Articles

1. Llenos, L. P., Miranda, I. L., Domogo, A. A., & Collera, J. A. (2023). Mathematical Modeling of Antibiotic Resistance in Hospital Dysbiosis. *Chiang Mai Journal of Science*, 50(3); doi:10.12982/CMJS.20203.027
2. Domogo, A. A., Reinstrup, P., & Ottesen, J. T. (2023). Mechanistic-mathematical modeling of intracranial pressure (ICP) profiles over a single heart cycle. The fundament of the ICP curve form. *Journal of Theoretical Biology*, 564:111451. doi:10.1016/j.jtbi.2023.111451
3. Domogo, A. A. , & Collera, J. A. (2022). Classifying Relative Equilibria and Relative Periodic Solutions in Two Mutually Delay-Coupled Stuart-Landau Oscillators . *Matimyas Matematika*, 2022.
4. Domogo, A. A., & Ottesen, J. T. (2021). Patient-specific parameter estimation: Coupling a heart model and experimental data. *Journal of Theoretical Biology*, 526:110791. doi:10.1016/j.jtbi.2021.110791
5. Domogo, A. A. , & Collera, J. A. (2018). Symmetric Solutions to a System of Mutually Delay-Coupled Oscillators with Conjugate Coupling. *Journal of Physics: Conference Series* 1123, 13(19), 012028; doi:10.1088/1742-6596/1123/1/012028.

6. Domogo, A. A. , & Collera, J. A. (2016). Classification of Codimension-One Bifurcations in a Tetrad of Lasers with Feed Forward Coupling. *AIP Conference Proceedings* 1787, 080002; doi:10.1063/1.4968141.

Research Presentations in Conferences

Date	Title of Presentation	Conference and Venue
International		
November 24 - 26, 2021	<i>Solutions to a System of Two Delay-Coupled Stuart-Landau Oscillators: A Symmetry Perspective</i>	Sab-atan 2021: International Conference on Mathematical Sciences and Applications (Online Conference)
August 13 - 15, 2018	<i>Symmetric Solutions to a System of Mutually Delay-Coupled Oscillators with Conjugate Coupling</i>	International Conference on Fundamental and Applied Sciences Venue: Kuala Lumpur, Malaysia
July 12 - 14, 2017	<i>Igorot Number Sense</i>	2nd International Conference on Cordillera Studies Venue: Baguio City, Philippines
August 15 - 17, 2016	<i>Classification of Codimension-One Bifurcations in a Tetrad of Lasers with Feed Forward Coupling</i>	International Conference on Fundamental and Applied Sciences Venue: Kuala Lumpur, Malaysia
National		
May 17 -19, 2018	<i>Phase Stability of Equilibrium Solutions to a Two-Oscillator System</i>	Mathematical Society of the Philippines Annual Convention Venue: Clark City
May 29 - 31, 2017	<i>Oscillators with Conjugate Coupling, a Symmetry Point of View</i>	Mathematical Society of the Philippines Annual Convention Venue: Legazpi City
May 30 - 31, 2016	<i>Numerical Bifurcation Analysis of Mutually Delay-Coupled Oscillators with Conjugate Coupling</i>	Mathematical Society of the Philippines Annual Convention Venue: Cebu City
May 25 - 26, 2014	<i>Symmetry-Breaking Steady-State Bifurcations in Delay-Coupled Lasers with Unidirectional Coupling</i>	Mathematical Society of the Philippines Annual Convention Venue: Iloilo City

May 17 - 18, 2013

*Numerical Bifurcation Analysis of
Delay-Coupled Lasers with
Unidirectional Coupling*

Mathematical Society of the
Philippines Annual
Convention
Venue: Puerto Princesa City

Public Service

Date/s	Extension Service Details
November 25, 2022	Event: <i>National Science and Technology Week</i> , UP Baguio Position: Speaker
November 22, 2022	Event: <i>Affirmative Action Program</i> , Olango Island, Lapulapu City Position: Volunteer Lecturer (Mathematics)
November 14, 2022	Event: <i>STEM EdPro Lecture Series on Science Investigatory Projects</i> , CRSHS, La Trinidad Position: Resource Speaker
November 7, 2022	Event: <i>STEM EdPro Lecture Series on Mathematical Investigatory Projects</i> , CRSHS, La Trinidad Position: Resource Speaker
Sep 29 - Oct 1, 2022	Event: <i>EDUKaravan sa Sagpat</i> , Sagpat Integrated School, Benguet Position: Resource Person (Mathematics Investigative Project)
September 22, 2022	Event: <i>1st Pahinungód Volunteer Summit</i> , UP Los Baños, Laguna Position: Resource Speaker
August 10 - 12, 2022	Event: <i>DMCS Intensive Training Program</i> , UP Baguio Position: Trainor/Lecturer (Mathematical Analysis)
May 19, 2022	Event: <i>2022 Division Math and Science Festival</i> , Benguet Position: Evaluator, Mathematical Investigation
April 20 - 22, 2022	Event: <i>EDUKaravan sa Sagpat</i> , Sagpat Integrated School, Benguet Position: Resource Person (Mathematics Appreciation)
April 6 - 8, 2022	Event: <i>Summer Institute in the Natural Sciences and Mathematics 2022</i> , UP Baguio, Baguio City Position: Lecturer Title of Talk: Parameter Estimation: Calibrating models with data
March 23-24, 2022	Event: <i>2022 Programme for International Student Assessment Review</i> , Sagpat Integrated School, Kibungan, Benguet Position: Lecturer
February 28, 2022	Event: <i>Pahinungód Book Drive</i> , San Gabriel, La Union Position: Organizer
November 24 - 26, 2021	Event: <i>Sab-atan 2021: International Conference on Mathematical Sciences and Applications</i> , UP Baguio (Online Conference) Position: Assistant Moderator
October 28-30, 2019	Event: <i>Enhancement Training on Mathematical Investigation</i> , Benguet

October 23, 2019	Position: Resource Speaker Event: <i>Living Traditions: Tapey Making Lecture and Demo</i> , IP Month, UP Baguio
October 11, 2019	Position: Keynote Speaker Event: <i>Launching of Ugnayan ng Pahinungód Baguio</i> , UP Baguio
October 10, 2019	Position: Speaker Event: <i>2019 Division Math and Science Festival</i> , Benguet
April 26 - 28, 2019	Position: Judge, Mathematical Investigation Event: <i>Summer Institute in the Natural Sciences and Mathematics 2019</i> , UP Baguio, Baguio City
April 24, 2016	Position: Lecturer Title of Talk: Functions and their Graphs, Business Math Event: <i>Philippine Arts Show and Tell Program (Pinikipikan: Cordillera Food Ritual)</i> , UP Baguio
November 21 - 23, 2018	Position: Speaker Event: <i>2018 Regional Math and Science Festival</i> , CAR
April 26 - 28, 2018	Position: Judge, Mathematical Investigation Event: <i>Summer Institute in the Natural Sciences and Mathematics 2018</i> , UP Baguio, Baguio City
April 28 - 30, 2016	Position: Lecturer Title of Talk: Prediction: Regression and Correlation Event: <i>Summer Institute in the Natural Sciences and Mathematics 2016</i> , UP Baguio, Baguio City
April 30 - May 2, 2015	Position: Lecturer Title of Talk: Statistics and Probability Event: <i>Summer Institute in the Natural Sciences and Mathematics 2015</i> , UP Baguio, Baguio City
May 1, 2014	Position: Lecturer Title of Talk: Revisiting Calculus: Teaching Guide for the K-12 Curriculum & Mathematical Typesetting: Books and Laboratory Manual Event: <i>Summer Institute in the Natural Sciences and Mathematics 2014</i> , UP Baguio, Baguio City
	Position: Lecturer Title of Talk: Ordinary Differential Equations

Membership in a National/International Organizations

Date/s	Organization Details
June 2012 - present	Member, Mathematical Society of the Philippines
August 2003 - present	Member, International Order of Demolay

Professional Development: Participation in Conferences/Trainings

Date	Conference and Venue
November 24 - 26, 2021	Sab-atan 2021: International Conference on Mathematical Sciences and Applications Venue: Online

January 6 - 8, 2020	International Workshop on Mathematical Biology Venue: Los Banos, Philippines
January 6 - 10, 2019	International Workshop on Mathematical Biology Venue: Bohol, Philippines
January 7 - 10, 2018	International Workshop on Mathematical Biology Venue: Cebu, Philippines
August 15 - 17, 2016	2016 International Conference on Fundamental and Applied Sciences Venue: Kuala Lumpur, Malaysia

National

November 9, 2022	National Orientation and Training of Regional Mentors on Mathematical Research Projects in Secondary Schools Venue: Online
October 22, 2022	Mathematics Webinar Series Venue: Online
May 15, 22, 29, 2021	Mathematical Society of the Philippines Annual Convention Venue: Online
October 19, 2019	DMCS Breakthroughs in Mathematics Venue: UP Baguio
August 9 - 10, 2019	Workshop on Approximation and Optimization 2019 Venue: University of the Philippines - Diliman, Quezon City
May 17 - 19, 2018	Mathematical Society of the Philippines Annual Convention Venue: Clark City
May 29 - 31, 2017	Mathematical Society of the Philippines Annual Convention Venue: Legazpi City
May 30 - 31, 2016	Mathematical Society of the Philippines Annual Convention Venue: Cebu City

Local

January 5, 2023	DMCS Graduate Colloquium Venue: Online
December 19 - 20, 2022	DMCS Talk Series Venue: UP Baguio
July 25, 2022	DMCS Graduate Colloquium Venue: Online
July 18 - 20, 2022	Volunteer Development Training Venue: Online
December 13 - 14, 2019	DMCS iAADS+ Workshop Venue: Baguio City
July 17 - 19, 2019	DMCS Midyear School V: Graduate Research Venue: UP Baguio
April 14 - 15, 2019	DMCS AUN-QA Workshop Venue: Tuba, Benguet

