## KELVIN A. LAGOTA

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#### **EDUCATIONAL BACKGROUND**

2015-2019 Ph.D. Mathematics

Concordia University

Thesis: "Green function and self-adjoint Laplacians on polyhedral

surfaces"

Supervisors: Alexey Kokotov, PhD and Victor Kalvin, PhD

2011-2015 Ph.D. Mathematics (Withdrawn, transferred to Concordia U)

University of the Philippines Diliman

2008-2011 M.S. Mathematics

University of the Philippines Diliman

Thesis: "Symmetric Expressions M of order 2n with Essential

Spectrum and Deficiency index d(M)=n+3"

Supervisor: Marian P. Roque, PhD

2005-2008 B.S. Mathematics

University of the Philippines Diliman

Undergraduate Research: "On Approximation by Polynomials:

The Weierstrass Approximation Theorem"

Supervisor: Marian P. Roque, PhD

#### **WORK EXPERIENCES**

# Mathematics Department, Dawson College Faculty (Continuing Education)

- Fall 2020
  - Linear Algebra (Science) 201-NYC-05 (delivered online)
  - Business Mathematics 201-801-DW (delivered online)
- Summer 2019
  - Linear Algebra (Social Science) 201-105-DW
  - o Calculus 1 (Social Science) 201-103-DW
- Winter 2019
  - o Calculus 2 (Science) 201-NYB-05
- Fall 2018
  - o Calculus 1 (Social Sciences/Commerce) 201-103-DW
  - o Remedial Activities for Secondary IV Math 201-016-50
- Winter 2018
  - Linear Algebra (Science) 201-NYC-05
  - Business Mathematics 201-801-DW

# Department of Mathematics & Statistics, Concordia University Grad Student Instructor, Teaching Assistant

- Winter 2019
  - o Class Tutor (Algebra and Functions, Differential and Integral Calc 1)
  - Tutor (Math Help Center)
  - Marker (Linear Algebra and Applications II)

- Fall 2018
  - Teaching Assistant (Fundamental Concepts of Algebra) (online)
- Winter 2018
  - Class Tutor (Differential and Integral Calculus 1)
  - Tutor (Math Help Center)
  - Marker (Mathematical Modeling)
- Fall 2017
  - Lecturer (Differential and Integral Calculus 2)
- Winter 2017
  - Lecturer (Algebra and Functions)
- Fall 2016
  - Lecturer (Differential and Integral Calculus 2)
- Summer 2016
  - Class Tutor (Differential and Integral Calculus 2)
- Winter 2016
  - Lecturer (Differential and Integral Calculus 2)
- Fall 2015
  - Class Tutor (Differential and Integral Calculus 2)
  - Marker (Complex Analysis 1, Differential Equations)

# Institute of Mathematics, University of the Philippines Diliman Instructor

- Oct 2011 July 2015 Instructor 7
- Nov 2008 Oct 2011 Instructor 1

Math 53 (Elementary Analysis 1) Coordinator, 2<sup>nd</sup> Semester AY 09-10 Co-Author/Co-Editor of Math 53 Module 1<sup>st</sup> Edition

Courses taught:

- Trigonometry 1x
- Algebra and Trigonometry 5x
- Elementary Analysis 1 10x
- Elementary Analysis 2 6x
- Elementary Analysis 3 2x
- Precalculus 3x
- Calculus 1 5x
- Calculus 2 3x
- Calculus 3 1x
- Differential Equations and Applications 6x
- Undergraduate Research 1x

# College of Science, University of the Philippines Diliman Coordinator, National Service Training Program (NSTP)

• June 2011 - July 2015

#### RESEARCH PUBLICATIONS

- A. Kokotov, K. Lagota, Green function and self-adjoint Laplacians on polyhedral surfaces, Canadian Journal of Mathematics, doi: 10.4153/ S0008414X1900033, (2019)
- M.P. Roque, G. Limson, K. Lagota, Non Limit-Point Symmetric Differential Expressions with Essential Spectrum, Matimyas Matematika, Vol. 30 Nos. 2-3 (2007), pp. 85-93

### PRESENTATIONS IN CONFERENCES AND SYMPOSIA

- > Symmetric Expressions of the Form  $My=(-1)^ny^{(2n)}+(cx^6y^{(4)})^{(4)}-(x^5y^{(1)})^{(1)}+(x^2y')'$ , (with MP Roque), 2012 MSP<sup>1</sup> Annual Convention, De La Salle Lipa, Lipa City, Batangas, PHILIPPINES, May 2012
- > Symmetric Expressions M of order 2n with Essential Spectrum and Deficiency Index n+3, (with MP Roque), The 6th SEAMS-GMU<sup>2</sup> International Conference on Mathematics and Its Applications, Universitas Gadjah Mada, Yogyakarta, INDONESIA, 12-15 July 2011
- > Symmetric Expressions of the Form  $My=(-1)^ny^{(2n)}+(cx^2y')'$ , (with MP Roque), 2011 MSP Annual Convention, University of Santo Tomas, Manila, PHILIPPINES, May 2011
- Symmetric Expressions of order 2n with Essential Spectrum and Deficiency Index n+3, (with MP Roque), 2009 MSP Annual Convention, Limketkai, Cagayan De Oro, Misamis Oriental, PHILIPPINES, May 2009

### SEMINARS, WORKSHOPS, AND SCHOOLS ATTENDED

- > 2016 CRM Summer School on Spectral theory and applications, Laval University, Quebec, Canada, 4 14 July 2016
- CIMPA-NIMS<sup>3</sup> Research School on dynamical systems: Examples, billiards and the 3-body problems, Center for Applications of Mathematical Principle, Daejeon, South Korea, 25 May – 3 June 2015
- \*CIMPA-ICIAM-IMU-CDC-Philippines Research School 2014: Partial Differential Equations: Analysis, Numerics, and Applications to Flood and Tsunamis, Institute of Mathematics, University of the Philippines Diliman, 23 June 4 July 2014
- SEAMS Manila School on the Applications of Algebra and Analysis, Institute of Mathematics UP Diliman, 4-15 April 2011

#### OTHER ACTIVITIES AND APPOINTMENTS

- Assistant Director, 14th Philippine Mathematical Olympiad
- Member, College of Science-NSTP Committee (2010-2015)
- Member, UPD-NSTP Executive Committee (2011-2015)
- Member of the local organizing committees of CIMPA School in Manila (2014) and SEAMS School in Manila (2011)
- Volunteer mentor at Diliman Learning Resource Center, UPD (2006-2008)

<sup>2</sup> Southeast Asian Mathematical Society – Gadjah Mada University

<sup>&</sup>lt;sup>1</sup> Mathematical Society of the Philippines

<sup>&</sup>lt;sup>3</sup> Centre International de Mathematiques Pures et Appliquees – National Institute for Mathematical Sciences

<sup>4</sup> http://www.cimpa-icpam.org/IMG/pdf/manila%202014 mr.pdf