

Jude Dzevela Kong

CONTACT INFORMATION

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EDUCATION

PhD in Applied Mathematics September 2012-August, 2017.
University of Alberta, Canada.

Certificate in Data Science earned on August 09, 2017.
University of Alberta, Canada.

Certificate in introduction to Data Science in Python earned on December 03, 2017.
by University of Michigan on Coursera.

Master of Science in Mathematical Engineering September 2010-August 2012.
Erasmus Mundus Joint Master's degree in Mathematical Modelling in Engineering(Mathmods): Theory, Numerics, Applications (University of L'Aquila-Italy and University of Hamburg-Germany).

Bachelor of Science in Mathematics October 2007-July 2009.
University of Buea, Cameroon.

Bachelor of Education in Mathematics October 2003-July 2006.
Advanced Teachers' Training College Annex Bambili (Ecole Normale Supérieure Annexe Bambili), University of Yaounde 1, Cameroon.

RESEARCH EXPERIENCE

Refereed Journal Publications:

- Jude D. Kong., Paul Salceanu, and Hao Wang, *A stoichiometric organic matter decomposition model in a chemostat culture*, Journal of Mathematical Biology: 1-36 (2017).
- Jude D. Kong, Chaochao Jin, and Hao Wang, *The inverse method for a childhood infectious disease model with its application to pre-vaccination and post-vaccination measles data*, Bulletin of Mathematical Biology, Vol. 77: 2231-2263 (2015).
- Jude D. Kong, William Davis, Xiong Li, and Hao Wang, *Stability and sensitivity analysis of the iSIR model for indirectly transmitted infectious diseases with immunological threshold*, SIAM J. Appl. Math., Vol. 74: 1418-1441 (2014).
- Jude D. Kong, William Davis, and Hao Wang, *Dynamics of a cholera transmission model with immunological threshold and natural phage control in reservoir*, Bulletin of Mathematical Biology, Vol. 76: 2025-2051 (2014).

Book publication:

- Jude D. Kong, Sreedhar S. Kumar, Pasquale Palumbo, *DDE models of the glucose-insulin system: A useful tool for the artificial pancreas*, Managing Complexity, Reducing Perplexity, 2014, p109-117, 9p. Publisher: Springer Science & Business Media B.V.

Conference publication:

- Pierdomenica Pepe, Palumbo Pasquale, Jude D. Kong, Saseendran K. Sreedhar & Panunzi Simona. *Regulation of the Human plasma glycemia by means of glucose measurements and subcutaneous insulin administration*, in the proceedings of the 3rd international congress on intelligent control and automation science, 46(20), 524-529, (2013) .

Submitted project:

- Jude D. Kong, Tariq Siddique, Mark Lewis, Julia Foght, Hao Wang. *A methane generation model for oil sands settling basins and end pit lakes*. Environmental Science & Technology (in review).
- Jude D. Kong, Christina Tadiri, Gregor Fussmann, Marilyn Scott, Hao Wang *A Data-Validated Host-Parasite Model for Infectious Disease Outbreaks*. Frontiers in Ecology and Evolution (in review)

Preprint:

- Haniyeh Fattahpour, Jude Kong, Michael Li, Jianjun Paul Tian, Yongfeng Li, and Hao Wang. *Dynamics of the iSIR model with temporal immunity*

Ongoing projects:

- Jude D. Kong, Emily Moberg, Becca Selden, Malin Pinsky *A process based model for species facing climate shift: predicting species ranges*.
- Edward Tekwa, Jude D. Kong, Malin Pinsky. *Harvest rate predictions with varied stock elasticity, cost, and stock valuation*.
- Jude D. kong, Simon A. Levin. *Phytoplankton growth and stoichiometry under nutrient and light colimitation and predation pressure in marine water*.

CONFERENCES
MEETINGS AND
WORKSHOPS
ATTENDED

- Special Seminar talk on Indirectly Transmitted Infectious Diseases at Arizona State University. April 12, 2019
- Special Seminar talk on Modelling Microbial Dynamics: Effects on Environmental Health at The College of William and Mary. March 29, 2019
- The AMS Special Session on “Mathematical Investigations of Spatial Ecology and Epidemiology” (Code: SS 79A) at the Joint Mathematics Meeting in Baltimore, January 16-19, 2019.
- The Sixth G. J. Butler International Conference on Differential Equations and Population Biology at the University of Alberta . July 23-27, 2018. Gave a talk at the conference.
- The MBI Workshop on Population Models in the 21st Century at the Ohio State University. November 14-18, 2016. Gave a poster presentation.
- The PIMS young researchers conference at the University of Alberta. June 13-16, 2016. Gave a talk at the conference.
- “Séminaire de Mathématiques Supérieures 2016” at the University of Alberta. May 30-June 10, 2016.
- The Alberta Student Leadership Summit. January 31, 2015.
- The first conference on biological stoichiometry at Trent University and gave a poster presentation. June 23-26, 2015. Gave a poster presentation.
- BIRS Workshop 13w5151: Current Challenges for Mathematical Modelling of Cyclic Populations. November 10 to November 15, 2013. Gave a talk at the conference.
- The University of Alberta Summer school on the Mathematics Behind Biological Invasions. May 2013.
- The IGTC Submit at Naramata. October 12-14. Gave a poster presentation.
- The Young Researcher’s workshop on Theoretical Approaches and Related Mathematical Methods in Biology and Medicine in the University of L’Aquila, Italy. November 30-December 2, 2011.
- The Alberta Mathematics Dialogue (AMD) meeting May 2014 and May 2013. Gave a talk at both meetings.

SCHOLARSHIPS AND AWARDS

- The Natural Sciences and Engineering Research Council Postdoctoral Fellowship (September 2017) (\$ 90000).
- The University of Alberta Faculty of Science Doctoral Dissertation Award (2017).
- Josephine Mitchell Scholarship (November 2016) (\$ 4000).
- Graduate Students' Association Academic Travel Award (November 2016) (\$ 500).
- Queen Elizabeth II Graduate Scholarship-Doctoral (September 2016) (\$ 7500).
- PIMS graduate student training acceleration award (August 2016) (\$10447).
- Josephine Mitchell Graduate student summer support Scholarship (GS4) (April 2016) (\$ 3500).
- The University of Alberta's Faculty of Graduate Studies and Research Travel Award (November 2015) (\$ 2000).
- The University of Alberta 2015 Graduate Student Teaching Award (2015).
- Erasmus Mundus Scholarship (September 2010-August 2012) (31000 €).
- Cameroon head of state's academic excellence award, (2009) (300000 frs CFA).
- The University of Buea vice-chancellor's awards for academic excellence, (2008) (150000 frs CFA).

TEACHING EXPERIENCE

Rutgers University, USA **January-May 2018**
Taught Design and Analysis of Data Structures and Algorithms (CS513) to graduate students.

University of Alberta, Canada **September 2012-August 2017**

- Taught Maths 201 (Ordinary Differential Equations), Maths 209 (Calculus III) and Maths 300 (Partial Differential Equations).
- Assist the Department of Mathematics in the supervision of midterm and final examinations.

Athabasca University, Canada **September 2015-2018**
Tutor for Ordinary and Partial Differential Equations courses (Math 376 and Math 476).

University of Buea, Cameroon **October 2008- February 2009**
Co-taught Calculus I. Shared responsibilities for lectures, tutorials, exams, homework assignments, and grades.

Government Secondary School-Great Soppo, Buea, Cameroon **Sept 2006 - July 2010**
Taught Mathematics to Secondary School students.

LANGUAGES

English, French(B2), Pidgin English, Lamnso, Italian(B1), German (A1)

COMPUTER SKILLS

Programming Languages:

- Python and Julia.

Specialised Software:

- MATLAB, Mathematica, R, STATA, SAS, SPSS.

LEADERSHIP /COMMUNITY SERVICES:

Organizer: *The Pacific Institute for the Mathematical Sciences*
Young Researchers Conference
<http://http://pimsyrc2016.ca>
University of Alberta

June 13-16, 2016.

Vice president: *University of Alberta Mathematical and Statistical Sciences Graduate Students Association*

April 2015 -March 2017.

Volunteers' Leader: *International Student Services (ISS)*

April 2015 -September 2016.

Concillor-at Large: *University of Alberta Graduate Students' Association* **April 2014-April 2016.**

International Student Advisory Council (ISAC): *International Student Services (ISS)* August 2014 - August 2015.

Coordinator: *Erasmus Mundus Students' and Alumni's Association(EMA)*
Central Africa Subregional Chapter August 2011-August 2014.

President: *Advanced Teacher's Training College Annex Bambili* May 2005-May 2006.

Volunteer, Cameroon cultural pavilion: *GlobalFest 2013* August 14-24.