Jude Dzevela Kong

CONTACT INFORMATION 8511 11 ave. SW. T6X 1J4, Edmonton Alberta, Canada *E-mail:* jdkong@ualberta.ca *Phone:* (587) 985-8688

PERSONAL

Citizenship: Cameroonian

Permanent Residence: Canada (obtained in January 2016)

EDUCATION

NSERC Postdoctoral Fellow

September 2017-Present.

Princeton University/DIMACS-Rutgers University, USA.

Advisor: Simon Levin.

PhD in Applied Mathematics

September 2012-August, 2017.

University of Alberta, Canada.

Advisor: Hao Wang.

Embedded Certificate in Data Science

September 2012-August 2017.

University of Alberta, Canada.

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). Advisor: Pasquale Palumbo.

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 Superieure Annexe Bambili), University of Yaounde 1, Cameroon.

RESEARCH EXPERIENCE

Refereed Journal Publications:

- 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).
- 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).
- Kong, Jude D., Paul Salceanu, and Hao Wang, A stoichiometric organic matter decomposition model in a chemostat culture, Journal of Mathematical Biology: 1-36 (2017).

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. Sreeedhar & 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 projects:

• 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).

Ongoing projects:

- Jude D. kong, Simon A. Levin. A mathematical model for the dynamics of phytoplankton in a stratified lake.
- Jude D. Kong, Christina Tadiri, Gregor Fussmann, Marilyn Scott, Hao Wang A mathematical model for guppy-gyrodactylus population dynamics in a laboratory pond.
- Jude D. kong, Tariq Siddique, Mark Lewis, Julia Foght, Hao Wang. GHG biogenesis model with nutrient dynamics and multiple bacterial functioning groups.

Workshops

- Attended the MBI Workshop on Population Models in the 21st Century at the Ohio State University from November 14-18, 2016 and gave a poster presentation.
- Attended the PIMS young researchers conference at the University of Alberta. June 13-16, 2016.
- Attended "Séminaire de Mathématiques Supérieures 2016" at the University of Alberta. May 30-June 10, 2016.
- Attended the Alberta Student Leadership Summit. January 31, 2015.
- Attended the first conference on biological stoichiometry at Trent University and gave a poster presentation. June 23-26, 2015.
- Attended BIRS Workshop 13w5151: Current Challenges for Mathematical Modelling of Cyclic Populations from November 10 to November 15, 2013. and gave a talk.
- Attended the University of Alberta Summer school on the Mathematics Behind Biological Invasions. May 2013.
- Attended the IGTC Submit at Naramata and presented a poster. October 12-14.
- Attended the Young Researcher's workshop on Theoritical Approaches and Related Mathematical Methods in Biology and Medicine in the University of L'Aquila, Italy from November November 30-December 2, 2011.
- Attended the Alberta Mathematics Dialogue (AMD) meeting May 2014 and May 2013 and gave talks there. (Thurs-Fri) 2014 at the Augustana Campus.

Awards

University of Alberta, Canada

2017

• Faculty of Science Doctoral Dissertation Award.

University of Alberta, Canada

2015

• 2015 Graduate Student Teaching Award.

TEACHING EXPERIENCE

University of Alberta, Canada

Terms: Winter, Spring & Summer 2014, Winter, Spring & Summer 2015, Winter, Summer & Fall 2014, Winter, Spring & Summer 2014, Winter, Spring & Summer 2016.

• TA Maths 201 (Ordinary Differential Equations) Labs, set quizzes for these labs and graded them. Equally graded the weekly assignments for students in this lab.

University of Alberta, Canada

Terms: Fall 2013, Spring 2014, Fall 2015

• TA Maths 209 (Calculus III) Labs, set quizzes for these labs and graded them.

- Assist students in solving first and second year mathematics problems at Decima Robinson Support Centre.
- Assist the Department of Mathematics in the supervision of midterm and final examinations.

University of Alberta, Canada

- Assist students in solving first and second year mathematics problems at Decima Robinson Support Centre.
- Graded assignments for Maths 300 (Partial Differential Equations).
- Assist the Department of Mathematics in the supervision of midterm and final examinations.

Athabasca University, Canada

Term: Fall 2015-Present

Term: Fall 2012

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.

SCHOLARSHPS

- The Natural Sciences and Engineering Research Council Postdoctoral Fellowship (September 2017) (\$ 90000).
- Josephine Mitchell Scholarship (November 2016) (\$ 4000).
- Graduate Students' Association Academic Travel Award (November 2016) (\$ 500).
- Queen Elizabeth II Graduate Scholarship-Doctoral (September 2016) (\$ 7500).
- 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).
- PIMS graduate student training acceleration award (\$10447).
- 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).

LANGUAGES

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

Computer skills

Programming Languages:

• Python, Julia and Java.

Specialised Softwares:

• 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 -present.

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.

REFEREES

• Simon A. Levin,

Princeton University,

Email: slevin@princeton.edu.

• Hao Wang,

University of Alberta, Email: hao8@ualberta.ca.

• Mark Lewis,

University of Alberta,

Email: mark.lewis@ualberta.ca.