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Citizenship: US Permanent Resident, Cameroon

Education and Training

University of Georgia, Athens, GA, USA

Doctor of Philosophy (Expected May 2012)
Dissertation: *Numerical Analysis of the ROF model in Image Processing.*
Advisor: Ming-Jun Lai, Professor, Department of Mathematics

Master of Science in statistics May 2011

The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy

The ICTP Postgraduate Diploma in Mathematics 2006
Thesis: *Critical Points and Elliptic Variational Problems.*
Advisor: Antonio Ambrosetti, Professor, SISSA, Trieste, Italy

Faculté des Sciences, Université de Yaoundé I, Yaoundé, Cameroun

Postgraduate Diploma (DEA) (Mathematics, option Numerical Analysis) 2004
Thesis: *Classical Orthogonal Polynomials of a Discrete Variable.*
Advisor: Mama Foupouagnigni, Associate Professor, University of Yaounde I

Master of Science I (Mathematics, option Numerical Analysis) 2002

Bachelor of Science (Mathematics) 2001

Ecole Normale Supérieure, Yaoundé, Cameroun

Secondary Education Teacher's Diploma, Level II 2003
Certified to teach mathematics in sixth through twelfth grade in Cameroon.
Thesis: *Classical Orthogonal Polynomials and Applications*
Advisor: Mama Foupouagnigni, Associate Professor, University of Yaounde I

Secondary Education Teacher's Diploma, Level I 2001
Certified to teach mathematics in sixth through ninth grade in Cameroon.
Graduated on top of the class.

Scholarships, Awards & Honors

VIGRE travel grant to attend the AMS-MAA joint national meetings 2011-2012
Department of Mathematics, University of Georgia

Inducted into the National Statistics Honorary Society Spring 2011
Department of Statistics, University of Georgia

Travel funding to attend a summer graduate workshop at PCMI Summer 2010
Nominated by the Department of Mathematics at the University of Georgia

B.J. Ball Scholarship Award for Academic Excellence 2009-2010
Mathematics Department, University of Georgia.

Graduate School Research Assistantship Award 2009-2010
Mathematics Department, University of Georgia.

William Armor Wills Memorial Scholarship Award Mathematics Department, University of Georgia.	2008-2009
Summer Research Assistantships sponsored by Dr. Ming-Jun Lai Mathematics department, University of Georgia.	2008-2010
Graduate Teaching Assistantship Mathematics department, University of Georgia.	2006-2012
UNESCO and Italian government scholarship The scholarship was awarded to 10 students from developing countries. The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy	2005-2006

Research Interests

Numerical Analysis, Scientific Computing, Image Processing
Mathematical Ecology, Mathematical Biology, and Statistics.

Publications and Posters

Journal Articles

- [1] L. Matamba, C. Kazanci, J.R. Schramski, M. Blessing, P. Alexander, and B.C. Patten, *Throughflow analysis: A stochastic approach*, Ecological Modelling **220** (2009), no. 22, 3174 - 3181.
- [2] C. Kazanci, L. Matamba, and E.W. Tollner, *Cycling in ecosystems: An individual based approach*, Ecological Modelling **220** (2009), no. 21, 2908 - 2914.

In preparation

- [3] Ming-Jun Lai and Leopold Matamba Messi, *Convergence Analysis of a Finite Difference Scheme for the L^2 total variation based image denoising*, Preprint (2011).
- [4] Julie Rushmore, Damien Caillaud, Rebecca Stumpf, Leopold Matamba, and Sonia Altizer, *Social network analysis with insights for disease transmission dynamics in wild chimpanzees*, In preparation.

Posters

- [1] Julie Rushmore, Leopold Matamba, Rebecca Stumpf, and Sonia Altizer, *Behavioral determinants of pathogen transmission in wild chimpanzees*, Ecology and Evolution of Infections Diseases, 9th annual workshop and conference (University of California, Santa Barbara, Summer, 2011).
- [2] L. Matamba, C. Kazanci, and E.W. Tollner, *Cycling in ecosystems: an individual based approach*, Third workshop on ecological network analysis (University of Georgia, Athens, GA, October 2008).

Research Experiences

VIGRE research group on the matrix completion problem Faculty mentor: Dr. Ming-Jun Lai	2011-2012
Intern, Complex Carbohydrate Research Center Supervisor: Dr. Maor Bar-peled.	Sum. 2011
VIGRE research group in compressed sensing Faculty mentor: Dr. Ming-Jun Lai.	Fall 2008
VIGRE research group in tropical geometry Faculty mentor: Dr. Valery Alexeev.	Spring 2008
VIGRE research group in algebraic graph theory Faculty mentor: Dr. Dino Lorenzini.	Fall 2007

Intern, Department of Biological and Agricultural Engineering, Univ. of Georgia The research initiated during this internship resulted in two papers. Supervisor: Dr. Caner Kazanci.	Sum. 2007
VIGRE research group in Mathematical Epidemiology Faculty mentor: Dr. Malcom Adams.	2006-2007

Conferences and Workshops

Graduate Summer School on Image Processing and Applications PCMI/IAS, Park-City, UT, USA.	Jun. 2010
Georgia Scientific Computing Symposium Georgia Institute of Technology, Atlanta, GA, USA.	Feb. 2010
Workshop on Mathematical Biology and Numerical Analysis University of Georgia, Athens, GA, USA.	Aug. 2009
Workshop on Multivariate Splines and their Applications University of Georgia, Athens, GA, USA.	May 2009
Georgia Scientific Computing Symposium Emory University, Atlanta, GA, USA.	Feb. 2009
Third Workshop on Ecological Network Analysis University of Georgia, Athens, GA, USA.	Oct. 2008

Presentations and Talks

Numerical Approximation of the ROF model Applied mathematics seminar, Mathematics department, University of Georgia.	Mar. 2011
On the numerical approximations of the Monge-Ampère equation Applied mathematics seminar, Mathematics department, University of Georgia.	Nov. 2010
On the numerical methods for the Monge-Ampère equation Mock AMS student conference, Mathematics department, University of Georgia.	Jul. 2010
Bivariate splines for numerical solutions of partial differential equations PhD candidacy oral exam, Mathematics department, University of Georgia.	Dec. 2008

Teaching Experiences

Department of Mathematics, University of Georgia

Calculus I for Science and Engineering Prepared the syllabus; prepared and delivered the lectures following the departmental topical outline of the course; evaluated the students and assigned the final grades.	Fall 2010 – Fall 2011
Analytical Geometry and Calculus Prepared the syllabus; prepared and delivered the lectures following the departmental topical outline of the course; evaluated the students and assigned the final grades.	Spring 2009
Precalculus Prepared and delivered the lectures; coached the students for the computerized tests.	Fall 2007, Fall 2008
Teaching assistant, Analytical Geometry and Calculus (two sections) Conducted recitations as directed by the instructor Partially graded the tests and final exam for one of the sections.	Spring 2009

Teaching Assistant for the REU group on Defining Ecosystem Health Summer 2008
Mentored two students on a project resulting in a publication

Learning assistant for the University of Georgia Athletic Association 2007-2009
Tutored student athletes in Introduction to Mathematical modeling, Calculus I and II, and Mathematics for Decision Making.

Secondary Education, Cameroon

Mathematics High School Teacher at a Public High school in Awae, Cameroon 2004-2005
Taught Arithmetic, Algebra, Geometry, and Statistics to seventh and tenth graders.
Served as the head teacher of the seventh grade class.

Mathematics High School Teacher at a Public High School in Yaounde, Cameroon 2003–2004
Taught Algebra, Arithmetic, Geometry, and Statistics to sixth, eighth, and tenth graders.

Teacher preparation at UGA

Calculus teaching seminar Spring 2009
Taken by first time graduate student instructor of calculus
Received teaching guidelines throughout the semester from an award winning faculty in the department

Precalculus teaching seminar Fall 2007
Taken by first time graduate student instructor of precalculus
Received teaching guidelines throughout the semester from an award winning faculty and a seasoned instructor

New teaching assistant seminar Fall 2006
Discussed teaching strategies and university policies governing instructional matters

Computer & Language Skills

Computer

Basic working knowledge of C/C++, Fortran and SAS.

Proficient in Matlab and R.

Advanced user of LaTeX, Linux and Windows operating systems.

Experience coding problems for the homework delivery system WebWork

Languages

Native proficiency in French

Good command of English

Professional Memberships

American Mathematical Society

Society for Industrial and Applied Mathematics

Service Activities

Volunteer student consultant at the Statistical Consulting Center University of Georgia	Spring 2011
Referee for the Journal Ecological Modeling One paper refereed to date.	Since 2010
Volunteer proctor and grader for the High School Mathematics tournament University of Georgia	2009, 2010
Co-organizer of the graduate student applied mathematics seminar University of Georgia.	Summer 2008

References

Dr. Ming-Jun Lai
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Department of Mathematics
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Dr. Caner Kazanci
Associate professor
Department of Mathematics
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Dr. Robert Varley (*Teaching*)
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Dr. Andrew Sornborger
Associate professor
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