

Yuanying Michelle Guan

School Address

Department of Mathematics and Actuarial Science
Indiana University Northwest
3400 Broadway, Gary, IN, 46408

Permanent Address

2846 N Halsted St Apt 2S
Chicago, IL 60657

EDUCATION

Ph.D., Financial Mathematics
Florida State University, Tallahassee, FL 2011

B.S., Applied Mathematics, Actuarial Science Concentration
Peking University, Beijing, China 2006

JOURNAL PUBLICATIONS

· *Complex Dynamics in Equilibrium Asset Pricing Models with Boundedly Rational, Heterogeneous Agents*, with A. N. Kercheval and P. Beaumont, *Complexity*, Vol 19, Issue 3, 2014, 38-55

· *Recruiting and Advising Challenges in Actuarial Science*, with B. A. Case and S. Paris, *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, Special Issue on Actuarial Education, Vol 24, Issue 9-10, 2014, 891-903

TEACHING EXPERIENCE

Assistant Professor

Indiana University Northwest, Gary, IN

August 2011 – Present

- M360 Elements of Probability; M125 Precalculus (Fall 2014)
- M325 Problem Seminar Actuarial Science; M117 Intermediate Algebra (Spring 2014)
- M320 Theory of Interest; M117 Intermediate Algebra (Fall 2013)
- M325 Problem Seminar Actuarial Science; A100 Fundamentals of Algebra (Spring 2013)
- M360 Elements of Probability; A100 Fundamentals of Algebra (Fall 2012)
- M119 Brief Survey of Calculus 1 (Spring 2012)
- M216 Calculus 2; M100 Basic Mathematics (Fall 2011)

Teaching Assistant

Florida State University, Tallahassee, FL

August 2006 – August 2011

- MAP 4170 Introduction to Actuarial Mathematics (Summer 2011)
- MAT 4930 Actuarial Applications (2009 – 2011)
- MAC 1140 Precalculus (2008 – 2009)
- MAC 1105 College Algebra (2006 – 2008)

CONFERENCE PRESENTATIONS

· *Financial Contagion with Heterogeneous Link-Weight Distributions*, SIAM Conference on Financial Mathematics & Engineering, Chicago, IL, Contributed Presentation & Panel Chair November 2014

· *Actuarial Science Education in Mathematics Departments*, 22nd International Conference on Finite and Infinite Dimensional Complex Analysis and Applications, Satellite Conference of 2014 Seoul International Congress of Mathematicians, Gyeongju, Korea, Coauthor August 2014

· *Challenges and Opportunities to Develop an Actuarial Program*, Joint Mathematics Meetings, MAA Actuarial Science Education Panel for Faculty, Baltimore, MD, Invited Panelist January 2014

· *Systemic Risk and Financial Contagion in Agent-Based Networks*, Joint Mathematics Meetings, AMS Session on Game Theory and Computing, Baltimore, MD, Contributed Presentation January 2014

· *Agent-based Asset Pricing Dynamics with Incomplete Markets in the Lucas Framework*, Joint Mathematics Meetings, AMS Session on Mathematics on Optimization, Game Theory and Applications of Mathematics, New Orleans, LA, Contributed Presentation January 2011

· *Dynamics Analysis in the Lucas Framework with Heterogeneous Agents*, Preliminary report, Joint Mathematics Meetings, AMS Session on Mathematics in Social Sciences, San Francisco, CA, Contributed Presentation January 2010

CONFERENCE DISCUSSANT

· *The 1st Annual Midwest Actuarial Student Conference*, Purdue University, West Lafayette, IN October 2013

· *Joint Mathematics Meetings, MAA Actuarial Science Education Panel for Faculty*, San Diego, CA January 2013

· *The 16th International Congress on Insurance: Mathematics and Economics*, Hong Kong University, Hong Kong June 2012

ACTUARIAL CREDENTIALS

- In Progress: Society of Actuaries e-learning courses FAP modules
- Completed Society of Actuaries exams P, FM, M, and C
- Fulfilled VEE requirements for Economics, Corporate Finance and Applied Statistics

CORPORATE EXPERIENCE

Actuarial Summer Intern

Bank of China Insurance Co., Huhhot, China

Summer 2008

- Reviewed short-term health claim reports of the past 4 years
- Estimated incurred but not reported reserves
- Increased reserves accuracy by 15% by implementing simulation to validate probabilistic trend models

Actuarial Research Assistant
Hong Kong Export Insurance, Beijing, China

2005-2006

- Collected data from export credit insurance records of the past 10 years
- Developed correlation tests on data structure and improved original policy system
- Performed premium rate adjustment by applying credibility theory with the Buhlmann model
- Designed a new Automatic Policy Underwriting Model

HONORS/AWARDS/GRANTS

Trustees' Teaching Award, Indiana University Northwest (2014)
Summer Faculty Research Fellowship, Indiana University Northwest (2012, 2013, 2014)
Nominee for Founders Day Teaching Award, Indiana University Northwest (2012, 2013, 2014)
Graduate Student Research Travel Grant, Florida State University (2011)
Distinguished Teaching Assistant, Florida State University (2010-2011)
Mary Kay Scholarship for Outstanding Women Students, Peking University (2005-2006)

MEMBERSHIPS

American Mathematical Society
Association for Women in Mathematics
Society for Industrial and Applied Mathematics

SERVICE

Reviewer: PRIMUS
Serve on Committees of IUN: Library, Survey & Curriculum, Faculty Development, International Affairs,
and Board of Trustees Teaching Award

INTERESTS

Cooking, dancing, rock climbing and skiing