Xueying HU

Contact Information

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Research Interests

Stochastic Control and Optimization, Financial and Actuarial Math, Credit Risk, Regime Switching, Computational Finance.

Education

University of Michigan, Ann Arbor, Michigan, USA

Ph.D., Applied and Interdisciplinary Mathematics, January 2012.

- Co-advisors: Prof. Erhan Bayraktar (Mathematics), Prof. Haitao Li (Finance).
- Area of Study: Financial and Insurance Mathematics, Quantitative Finance.

M.S., Applied and Interdisciplinary Mathematics, August 2008.

University of Science and Technology of China, Hefei, Anhui, P.R.China

B.S., Mathematics and Applied Mathematics, June 2006.

Selected Awards

- SIAM Student Travel Award, Society for Industrial and Applied Mathematics, 2010.
- Rackham Travel Grant, Rackham Graduate School, University of Michigan, 2010.
- Travel Grant for the Third Western Conference in Mathematical Finance, National Science Foundation, 2009.
- Graduate Departmental Scholarship, University of Michigan, 2008, 2009.
- Alice Webber Glover Math Scholarship, University of Michigan, 2007.
- Outstanding Student Scholarship (Golden Prize), University of Science and Technology of China, 2002-2006.

Publications and Manuscripts

1. *Minimizing the Probability of Lifetime Ruin under Stochastic Volatility*, with E. Bayraktar and V. R. Young, published on **Insurance: Mathematics and Economics**, Volume 49, Issue 2, September 2011, Pages 194-206.
2. *Exact Simulation of Heston Model with Jumps*, with E. Bayraktar and K. Giesecke, working paper.
3. *Pricing Credit Default Spreads with a Regime-Switching Model*, with H. Li and T. Li, working paper.

Presentations

- Statistics Student Seminar, Ann Arbor, October 13, 2010.
- SIAM Conference on Financial Mathematics and Engineering (FM10), San Francisco, November 19, 2010.
- First Annual University of Michigan SIAM Student Conference, Ann Arbor, November 13, 2010.
- Bachelier Finance Society World Congress, Fields Institute, Toronto, June 25, 2010.
- Financial/Actuarial Mathematics Seminar, University of Michigan, Ann Arbor, March 17, 2010.

Conferences and Workshops

- New Directions in Financial Mathematics, IPAM, University of California at Los Angeles, January 5-8, 2010.
- The Third Western Conference in Mathematical Finance, Santa Barbara, California, November 2009.

- Mathematical Modeling in Industry XIII - A Workshop for Graduate Students, Institute for Mathematics and Its Applications, Minneapolis, Minnesota, August 2009.
- Mathematical Modeling in Industry XI - A Workshop for Graduate Students, Institute for Mathematics and Its Applications, Minneapolis, Minnesota, August 2007.

Academic Experience

University of Michigan, Ann Arbor, MI, USA

Teaching Assistant

Held office hours, graded homework/exams, prepare homework solutions and MATLAB code, and occasionally substituted for primary instructor

- Stochastic Analysis for Finance, MATH 506. Prof. Semih Sezer, Fall 2008; Prof. Mattias Jonsson, Fall 2009, Fall 2011. (required course for financial engineering program).
- Computational Finance, MATH/IOE 623. Prof. Erhan Bayraktar, Fall 2010. (service course for financial engineering program).
- Discrete-State Stochastic Processes, MATH/STATS 526. Prof. Jinho Baik, Winter 2009, Winter 2010. (required course for undergraduates in Financial Math program).

Research Assistant

Assisted with research projects for Prof. Erhan Bayraktar, Winter 2011.

Primary Instructor

Lectured, made quizzes, held office hours, graded individual and team homework, marked mid-term and final exams, and administered final grades

- Pre-Calculus, MATH 105. Fall 2007, Winter 2008.

Tutor

Held one-to-one private sessions for collage and graduate-level students on courses including calculus, numerical analysis, real and complex analysis, probability, statistics, econometrics, stochastic processes, and programming.

Grader

- Applied Honors Calculus IV: Differential Equations, MATH 256. Fall 2006, Prof. Somez Sahutoglu.

Industry Experience

- Associate, Market Risk Management and Analysis, Goldman Sachs, New York City, NY, Summer 2011.
- Associate, Analysis and Information Management, Bank of America, Charlotte, NC, Summer 2008.

Skills

- Programming: MATLAB, C++, R, SAS, LaTeX, Microsoft Office, Unix/Mac/Windows
- Language: English(fluent), Mandarin(native)

References

Available upon request