Yu-Sin Chang

Assistant Professor, Mathematics

Degree with Fields, Institution, and Date

- PhD, Applied Mathematics, Illinois Institute of Technology
- MS, Financial Engineering, University of Michigan-Ann Arbor
- MS, Money and Banking, National Chengchi University, Taipei, Taiwan
- BS, Money & Banking, National Chengchi University, Taipei, Taiwan

Years of Service on this Faculty: 1

Date of Original Appointment: September, 2018

Other Teaching Experience

- Graduate Student Instructor, Teaching Assistant, Illinois Institute of Technology Department of Applied Mathematics, 2013-2017
- Teaching Assistant, Illinois Institute of Technology Stuart School of Business, 2009-2011
- Grader, University of Michigan-Ann Arbor Department of Industrial and Operations Engineering, Spring, 2008

Industrial Experience

- **Quantitative Researcher, Department of Fixed Income, Masterlink Securities Investment Corporation, Taipei, Taiwan, 2003-2006**
    - Collaborated with trading and marketing desks to design and issue exotic products, contributing to the top one country trading volumes in bond options and top three country market shares in structured notes

- Collaborated with the IT department to construct the fixed incomes derivatives evaluation platform
- Developed pricing models for OTC derivatives, including structured notes, bond options and exotic corporate bonds
- Initiated potential products and performed quantitative and scenario analyses
- Constructed the platform to daily fit zero-yield curve with few on-the-run Taiwan Government Bonds
- Originated asset allocation models for the fund of funds
- Built comprehensive and user-friendly evaluation tools to analyze the real time implied volatilities for various products

Scientific and Professional Societies of Which a Member

- Association for Women in Mathematics
- Society for Industrial and Applied Mathematics

Professional Development

- Joint Mathematics Meetings, San Diego, CA, Winter, 2018
- National Meeting of Women in Financial Mathematics, Los Angeles, CA, Spring, 2017
- AMS Session on Mathematical Finance, Chicago, IL, Fall 2015
- SIAM Conference on Financial Mathematics and Engineering, Chicago, IL, Winter, 2014
- PLMS workshop on Economics and Mathematics of Systemic Risk, Vancouver, Canada, Summer, 2014
- Stevanovich Center Conference on Market Microstructure and High Frequency Data, Chicago, IL, Spring, 2013-2017

Presentations Given

- Third Eastern Conference on Mathematical Finance, Illinois Institute of Technology, Chicago, IL, October, 2018
- Mathematical Finance and Stochastic Analysis Seminar, Illinois Institute of Technology, Chicago, IL, 2013-2015

Special Qualifications

- Programming C++, MATLAB, Python, Visual Basic, Mathematica
- Languages: English (fluent), Mandarin Chinese (native) and Taiwanese (native)
- License: Financial Risk Manager (FRM)