Chunkai Gao

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EDUCATION

- **Ph.D.** in Financial Mathematics and Statistics,University of California, Santa Barbara, *In progress*
  - Dissertation: *Systemic Financial Risk: Measurement and Management*
  - Advisor: Prof. Jean-Pierre Fouque
- **M.A.** in Economics, University of California, Santa Barbara, 2009
- **M.A.** in Statistics, University of California, Santa Barbara, 2008
- **M.S.** in Mechanical Engineering, University of California, Santa Barbara, 2007
  - Thesis: *Averaging Algorithms and Coverage Control*; Advisor: Prof. Francesco Bullo
- **B.Engr.** in Automation, University of Science and Technology of China, 2004
  - Honors: **Guo Moruo Fellowship -** the highest honor for graduating class
  - Thesis: *Genetic Algorithms (GA) based Robust Controller Design*
  - Overall GPA: 3.8/4.0, Major GPA: 3.9/4.0

SKILLS

- Programming: C, C++, Java, Matlab, SIMULINK, R, SAS, BASIC, SQL, LISP, VHDL
- Languages: English (fluent), Chinese (native).

PROFESSIONAL EXPERIENCE

- *Fund Internship*, **International Monetary Fund** (IMF), Washington D.C., Jun.-Sept., 2010
  - Gained better understanding of the work of policy-oriented institutions
  - Conducted extensive research on regulatory impacts of financial regulations (e.g., Basel III) under the supervision of and in cooperation with IMF economists and financial sector experts
- *Graduate Student Researcher*, **University of California**, **Santa Barbara**, 2009-Present
  - Quantitative finance: *Regulatory impacts of bank behaviors*; *Systemic risk in financial systems*; *Financial stability and crisis*; *Risk management*; *Robustness of financial models*; *Illiquidity*
- *Graduate Student Researcher*, **University of California**, **Santa Barbara**, 2005-2007
  - Cooperative control: *Decision planning for multi-agent systems*; *Coordination of distributed sensor networks*; *Global optimization and its application in distributed sensor networks*
- *Teaching Assistant*, **University of California**, **Santa Barbara**, 2004-Present
  - Selected courses: *Aerodynamics & Aeronautical Engineering*; *Control Systems Design*; *Engineering Mechanics: Statics*; *Graphics and CAD Design*; *Engineering Mechanics: Dynamics*; *Introductory Statistics*; *Statistics for the Life Sciences*; *Statistics with Economics and Business Applications*
- *Undergraduate Research Assistant*,**University of Science and Technology of China**, 2003-2004
  - Junior researcher practice under Undergraduate Research Program

PROFESSIONAL AFFILIATIONS and SERVICES

- Student member of SIAM, IMS, IAFE, TCFA, IEEE and IEEE-CSS.
- Technical paper reviewer of IFAC *World Congress*, IEEE *Conf. on Decision and Control*, *American Control Conf.*, IEEE *Transactions on Control Systems Technology*, *International Journal of Robust and Nonlinear Control*, *SYROCO*, etc.

LEADERSHIP, LOCAL COMMUNITY AFFILIATIONS and SERVICES

- Member of Executive Board, Santa Barbara Chinese American Association (2005-Present)
- President, UCSB Chinese Students and Scholars Association (2005-2008)
- Member of Board of Directors, UCSB Multi-Cultural Center (2007)

AWARDS and HONORS

- Awards from **University of California, Santa Barbara** (UCSB)
  - University of California President's Work-Study (2008-2009); UCG08 Matching Fellowship (2009); Graduate USAP Fellowship (2007-2009); Graduate Block Grant Fellowship (2008); Research Assistantship (2005-2007); Teaching Assistantship (2004-2010)
- Awards from **University of Science and Technology of China** (USTC)
  - Outstanding Graduate Award (2004); Guo Moruo Fellowship(the supreme award from USTC) (2003); Fang Shuquan Scholarship (2001); Excellent Student Scholarship (1999, 2000, 2002)

PUBLICATIONS

- Journal articles
  - C. Gao, J. Cortes, and F. Bullo. **Notes on Averaging over Acyclic Digraphs and Discrete Coverage Control.** *Automatica*, 44(8):2120-2127, 2008.
- Book chapters and conference articles
  - C. Gao, F. Bullo, J. Cortes, and A. Jadbabaie. **Notes on averaging over acyclic digraphs and discrete coverage control.** *In IEEE Conf. on Decision and Control*, P4651-4656, 2006.

CONFERENCES and WORKSHOPS

- *Frameworks for Systemic Risk Monitoring*, Jun. 21-22, 2010, Washington D.C.
- *New Directions in Financial Mathematics*, Jan. 5-8, 2010, IPAM, UCLA
- The 3rd *Western Conference in Mathematical Finance*, Nov. 13-15, 2009, Santa Barbara, CA
- *Modeling High Frequency Data in Finance*, Jul. 10-12, 2009, Stevens Inst. of Tech., Hoboken, NJ
- NSF/CBMS Conf. on *Convex Duality Method in Mathematical Finance*, Jun. 22-27, 2008, UCSB
- The 45th IEEE Conference on *Decision and Control*, Dec. 13-15, 2006, San Diego, CA
- The 12th *Southern California Nonlinear Control Workshop*, Jun. 2, 2006, UCSB
- The 11th *Southern California Nonlinear Control Workshop*, Nov. 11-12, 2005, Caltech

REFERENCE

Dr. **Jean-Pierre Fouque**
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Director of Center for Research in Financial Mathematics and Statistics
University of California at Santa Barbara
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