

Biographical Sketch
Ph.D. Candidate Minjie Fan

Department of Statistics, University of California, Davis
e-mail: mjfan@ucdavis.edu, tel: +1-530-574-1179

(a) Professional Preparation

University of California, Davis, Ph.D. in Statistics, Summer 2017 (Expected)

Fudan University, B.S. in Mathematics, June 2012

(b) Appointments

Sept 2014–Present: **Research Assistant**, Department of Statistics, University of California, Davis

Feb 2015: **Research Visit**, Computational & Information Systems Lab (CISL), National Center for Atmospheric Research (NCAR)

Host: Tomoko Matsuo and Doug Nychka

Analyzed an ocean surface wind dataset called QuikSCAT via a novel cross-covariance model called Tangent Mixed Matérn. Prepared data analysis reports.

June 2014–Aug 2014: **Summer Research Intern**, Computational & Information Systems Lab (CISL), National Center for Atmospheric Research (NCAR)

Host: Tomoko Matsuo and Doug Nychka

Predicted small-scale electric potential fields based on the SuperDARN dataset. Modeled the potential fields via spherical Needlets. Attended weekly Statistics Group Meetings and reported progress to scientists.

May 2013–Present: **PhD Student Researcher**, International CHASC Astro-Statistics Collaboration

Worked with two astronomers on analyzing X-ray images. Proposed a novel graph-based seeded region growing (G-SRG) method to detect source structures. Presented remotely in *Topics in Astrostatistics* at Harvard.

Sept 2012–June 2014: **Teaching Assistant**, Department of Statistics, University of California, Davis
Courses: STA13, STA231A, STA232B

Mar 2011–Aug 2012: **Undergraduate Researcher**, Undergraduate Research Opportunity Program, Fudan University

Derived the statistical theories and programmed most of the code in the project of robust portfolio management via Worst-case Value-at-Risk (WCVaR).

(c) Products

1. Shushang Zhu, **Minjie Fan** and Duan Li. “Portfolio management with robustness in both prediction and decision: a mixture model based learning approach.” *Journal of Economic Dynamics and Control*, 2014.
2. **Minjie Fan** and Thomas C.M. Lee. “Variants of seeded region growing.” *IET Image Processing* (accepted).
3. **Minjie Fan** and Tomoko Matsuo. “Cross-covariance functions for divergence-free and curl-free multivariate random fields on the sphere” (in preparation).
4. **Minjie Fan**, Thomas C.M. Lee, Debashis Paul, Tomoko Matsuo. “Robust cokriging based on a mini-max criterion” (in preparation).

(d) Honors and Awards

June 2014: Julius Blum Award (given to the outstanding graduate students).

Apr 2011: Honorable Mention in American Interdisciplinary Contest in Modeling (ICM).

Nov 2010: National 1st Prize of China Undergraduate Mathematical Contest in Modeling.

(e) Synergistic Activities

Fall 2014–Present: Website Maintainer, ASA Astrostatistics Interest Group.

(f) Collaborators & Other Affiliations

Collaborators and Co-Editors: *University of California, Davis:* Thomas C.M. Lee; *Sun Yat-Sen University:* Shushang Zhu; *The Chinese University of Hong Kong:* Duan Li; *Harvard University:* Vinay Kashyap

Graduate Advisors: *University of California, Davis:* Thomas C.M. Lee, Debashis Paul; *National Center for Atmospheric Research:* Tomoko Matsuo