

Emily Lei Kang

CONTACT INFORMATION	Department of Statistics The Ohio State University 304E Cockins Hall 1958 Neil Avenue Columbus, OH 43210 USA	<i>Cell:</i> (614) 286-9047 <i>Office:</i> (614) 292-1567 <i>E-mail:</i> lei@stat.osu.edu <i>www.stat.osu.edu/~lei</i>
PERSONAL	Chinese citizen with an F1 student visa in the U.S.A.	
RESEARCH INTERESTS	<ul style="list-style-type: none">• Spatial statistics and spatio-temporal statistics• Bayesian methodology and hierarchical modelling• Applications of statistics in environmental sciences and engineering• Statistical machine learning and kernel methods	
EDUCATION	The Ohio State University	09/2004 - 12/2009 (expected)
	Ph.D. student, Statistics (GPA: 3.98/4.0) <ul style="list-style-type: none">• Advisor: Prof. Noel Cressie• Area of Study: Spatial and Spatio-Temporal Processes	
	M.S., Statistics (GPA: 3.98/4.0) Tianjin University , Tianjin, China	09/2000 - 06/2004
	B.S., Applied Mathematics Nankai University , Tianjin, China	09/2001 - 06/2004
	B.A., Finance	
AWARDS AND HONORS	<ul style="list-style-type: none">• Scholarship for College Students in Science, Tianjin Government, 2001• Scholarship, Alumni Foundation of Tianjin University in America, 2002• Scholarship, Chinese Academy of Sciences, 2003• University Fellowship, The Ohio State University, 2004-2005	
TEACHING EXPERIENCE	The Ohio State University	
	<i>Recitation Instructor</i>	
	<ul style="list-style-type: none">• STAT 245: Introduction to Statistics & Data Analysis	Autumn 2007
	<i>Grader</i>	
	<ul style="list-style-type: none">• STAT 427: Introduction to Probability and Statistics I• STAT 620: Statistical Inference I• STAT 428: Introduction to Probability and Statistics II• STAT 829: Spatial Statistics	Autumn 2005 Autumn 2005 Winter 2006 Autumn 2008

RESEARCH
ASSISTANT
EXPERIENCE

- *Research Assistant* for Prof. Cressie in the Program in Spatial Statistics and Environmental Statistics (SSES) **Spring 2006 - present**

INTERNSHIP
EXPERIENCE

- *Intern* with Dr Stephan Sain at The National Center for Atmospheric Research (NCAR) at Boulder, CO, 06/2008 - 09/2008
- *Intern* with Dr Richard Morton and Dr Brent Henderson at The Commonwealth Scientific and Industrial Research Organization (CSIRO) in Canberra, Australia, 06/2006 - 09/2006

PUBLICATIONS

Refereed Articles

- Morton, R., **Kang, E. L.**, and Henderson, B. (2009). Smoothing splines for trend estimation and prediction in time series. *Environmetrics*, 20, 249-259.
- **Kang, E. L.**, Liu, D., and Cressie, N. (2009). Statistical analysis of small-area data based on independence, spatial, non-hierarchical, and hierarchical models. *Computational Statistics and Data Analysis*, 53, 3016-3032.
- Cressie, N. and **Kang, E. L.** (2009). High-resolution digital soil mapping: Kriging for very large datasets, in *Proximal Soil Sensing*, eds R. Viscarra-Rossel, A. B. McBratney, and B. Minasny. Elsevier, Amsterdam, forthcoming.
- Cressie, N., Shi, T., and **Kang, E. L.** (2009). Fixed rank filtering for spatio-temporal data, submitted. (Department of Statistics Preprint No. 819, The Ohio State University)
- **Kang, E. L.**, Cressie, N., and Shi, T. (2009). Using temporal variability to improve spatial mapping with application to satellite data, submitted.

Unrefereed Articles

- Cressie, N. and **Kang, E. L.** (2008). Soil mapping using spatial statistics: Kriging for very large datasets, in *Proceedings of First Global Workshop on High Resolution Digital Soil Sensing and Mapping*, Vol. I, Sydney, Australia (14pp.).

Manuscripts

- **Kang, E. L.**, Cressie, N., and Sain, S. R. (2009). Hierarchical spatial random effects model for high-resolution data from regional climate models, in preparation.
- **Kang, E. L.** and Cressie, N. (2009). Bayesian space-time random-effects model, in preparation.

TALKS AND PRESENTATIONS

- Choosing Smoothing Parameters for Spline Prediction Models with Correlated Errors, presentation for CSIRO Internship at Division of Mathematical and Information Sciences and the Australian National University, Canberra, Australia, August 2006
- Spatial Statistical Analysis of Doctors' Prescription Amounts by Regions, Joint Statistical Meetings, Salt Lake City, August 2007
- Statistical Analysis of Small-Area Data Based on Independence, Spatial, Non-hierarchical, and Hierarchical Models, The 22nd Annual Edward F. Hayes Graduate Research Forum of The Ohio State University, April 2008
- Hierarchical Spatial Random Effects Model for High-resolution Data from Regional Climate Models, Joint Statistical Meetings, Washington, DC, August 2009

WORKSHOPS

- MBI Workshop, "Uncertainty in Ecological Analysis", The Ohio State University, Columbus, OH, April 3-6, 2006

COMPUTING SKILLS

- *Programming*
Matlab, R, S-plus, SAS, C/C++
- *Applications*
L^AT_EX, Microsoft Office, and other common productivity packages for Windows, Apple OS X, and Linux platforms
- *Operating Systems*
Microsoft Windows, Apple OS X, Linux and other UNIX variants