

Mikyoung Jun

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Education

Ph.D. Statistics, University of Chicago, 2005
MStat courses completed. Statistics, Seoul National University, 2000
B.S. Statistics, Seoul National University, 1999,
Cum Laude, Valedictorian

Employment

Assistant Professor, Department of Statistics, Texas A& M University, Aug 2005 - Present
Visiting Scientist, Center for Integrating Statistical and Environmental Science, University of Chicago,
June 2007 - September 2007
Visiting Scientist, Center for Integrating Statistical and Environmental Science, University of Chicago,
Summer 2006
Visiting Scientist, National Center for Atmospheric Research, Aug 2005 - Dec 2005

Honors & Awards

University Fellowship and Assistantship, Department of Statistics, University of Chicago, 2000-2005
ASA/ENVR student paper competition, *Honorable Mention*, Joint Statistical Meeting 2004
NSF travel grants (two), 2003
Raj Bahadur Fellowship, Department of Statistics, University of Chicago, Summers 2001
Honors Scholarship, Department of Statistics, Seoul National University, 1995-2000
Korean Research Association Fellowship, 1998-1999

Grants

NSF DMS-0906532, PI, Sep 2009 - Aug 2012
KAUST GRP Award grant, Investigator, June 2008 - May 2013
NSF ATM-0620624 (CMG grant), co-PI, Sep 2006 - Aug 2010

Invited Talks

- Department of Applied Statistics, Yonsei University, July 2011
- Conference for the 40th anniversary of Korean Statistical Society, July 2011
- Department of Applied Statistics, Konkuk University, June 2011
- Department of Financial Engineering, Ajou University, June 2011
- Department of Statistics, Korea University, June 2011
- Environmetrics Conference, Boulder, CO, Oct 2010
- Conference on Resampling Methods and High Dimensional Data, TAMU, College Station, Mar 2010
- Data Assimilation in the Geosciences workshop, TAMU, College Station, Oct 2009
- Opening workshop for the program on Space-time Analysis for Environmental mapping, Epidemiology, and Climate change, SAMSI, RTP, Sep 2009

- Korea Meteorological Administration, Seoul, Korea, July 2009
- IMS-China International Conference on Statistics and Probability, Weihai, China, July 2009
- IMS Asian Pacific Rim Meeting, Seoul, Korea, June 2009
- Department of Mathematics and Statistics, Duksung Women's University, June 2009
- Department of Biostatistics, University of Texas MD Anderson Cancer Center, Nov 2008
- Department of Statistics, Rice University, Sep 2008
- Department of Management Science and Statistics, University of Texas, San Antonio, Oct 2007
- Department of Statistics, University of Wisconsin, Madison, Oct 2007
- Joint Statistical Meeting, Salt Lake City, UT, Aug 2007
- Korean Statistical Association Meeting, Busan, Korea, May 2007
- Random Matrix Workshop, NCAR, CO, May 2007
- INFORMS, Pittsburgh, PA, Nov 2006
- Department of Statistics, University of Georgia, Oct 2006
- ENAR, Tampa, FL, Mar 2006
- Statistical Research Center for Complex System, Seoul National University, Seoul, Korea, Jan 2006
- WNAR/IMS, Fairbanks, AK, June 2005
- Department of Statistics, Harvard University, Feb 2005
- Department of Statistics, University of California, Irvine, Feb 2005
- Department of Statistics, Colorado State University, Feb 2005
- Department of Statistics, University of Toronto, Feb 2005
- Department of Statistics, Texas A&M University, Feb 2005
- Department of Statistics, Carnegie Mellon University, Feb 2005
- Department of Statistics, University of Florida, Jan 2005
- Department of Statistics, University of Illinois, Urbana-Champaign, Jan 2005
- Department of Statistics, North Carolina State University, Jan 2005

Contributed Talks

- Climate modeling opening workshop of SAMSI UQ program, Pleasanton, CA, August 2011 (poster)
- ENAR, Miami, FL, Mar 2011
- Joint Statistical Meeting, Vancouver, BC, Aug 2010 (discussant in a topic-contributed session)
- Climate Change workshop for the program on Space-time Analysis for Environmental mapping, Epidemiology, and Climate change, SAMSI, RTP, Feb 2010 (poster)
- Spring Symposium, Institute for Applied Mathematics and Computational Science, College Station, TX, May 2009 (poster)
- Multivariate Methods in Environmetrics (CISES/ASA), Chicago, IL, Oct 2006 (poster)
- Joint Statistical Meeting, Seattle, WA, Aug 2006 (topics contributed session)
- IMS New Researcher's Conference, Seattle, WA, Aug 2006 (poster)
- Joint Statistical Meeting, Toronto, Canada, Aug 2004
- Graybill conference, Colorado State University, Fort Collins, CO, June 2004 (poster)
- Chicago Joint Conference on the Environment, Chicago, IL April 2004 (poster)
- Workshop on Internet Tomography and Sensor Network, SAMSI, NC, Oct 2003 (poster)

Publications

- **Jun, M.**, Genton, M.G. (2012+). A test for stationarity of spatio-temporal random fields on planar and spherical domains. *Statistica Sinica*, In press.
- Sang, H., **Jun, M.**, Huang, J.Z. (2012+). Covariance approximation for large multivariate spatial datasets with an application to multiple climate model errors. *Annals of Applied Statistics*, In press.
- Vaughan, A., **Jun, M.**, Park, C. (2012+). Statistical inference and visualization in scape-space for spatially dependent images. *Journal of Korean Statistical Society*, In press. Online version doi:10.1016/j.jkss.2011.07.006.
- **Jun, M.** (2011). Nonstationary cross-covariance models for multivariate processes on a globe. *Scandinavian Journal of Statistics*, Vol 38, pp. 726-747.
- **Jun, M.** (2011). Discussion of “An explicit link between Gaussian fields and Gaussian Markov random fields: The stochastic partial differential equation approach” by Finn Lindgren, Håvard Rue and Johan Lindström. *Journal of the Royal Statistical Society, Series B*, 73, p. 478.
- **Jun, M.**, Szunyogh, I., Genton, M.G., Zhang, F., Bishop, C.H. (2011). A statistical investigation of the sensitivity of ensemble based Kalman filters to covariance filtering. *Monthly Weather Review*, Volume 139, pp. 3036-3051.
- **Jun, M.**, Stein, M.L. (2008). Nonstationary covariance models for global data. *Annals of Applied Statistics*, Volume 2, pp. 1271-1289.
- **Jun, M.**, Knutti, R., Nychka, D.W. (2008). Spatial Analysis to Quantify Numerical Model Bias and Dependence: How Many Climate Models Are There? *Journal of the American Statistical Association*, Volume 103, pp. 934-947.
- **Jun, M.**, Knutti, R., Nychka, D.W. (2008). Local eigenvalue analysis of CMIP3 climate model errors. *Tellus*, 60A, pp. 992-1000.
- **Jun, M.**, Stein, M.L. (2007). An Approach to Producing Space-time Covariance Functions on Spheres. *Technometrics*, Volume 49, No. 4, pp. 468-479.
- **Jun, M.**, Stein, M.L. (2004). Statistical Comparison of Observed and CMAQ Modeled Daily Sulfate Levels. *Atmospheric Environment*, Volume 38, Issue 27, pp. 4427-4436.

Manuscripts

- **Jun, M.**, Hu, J. and Johnson, V.E. (2011). Assessing fit in Bayesian models for spatial processes. IAMCS preprint series 2011-243. *under revision*.
- **Jun, M.**, Park, E.S. (2011). Multivariate receptor modeling for spatially correlated multi-pollutant data. IAMCS preprint series 2011-226. *under revision at Technometrics*.
- **Jun, M.**, Zhang, F., Bishop, C. H. (2008). Parametric and nonparametric statistical methods for covariance estimation. IAMCS preprint series 2008-021. Texas A&M University.

Courses taught

STAT 211: Principles in Statistics I

STAT 647: Spatial Statistics

STAT 685 (& ATMO 685): Multidisciplinary topics course for Statistics and Atmospheric Sciences

Student supervision

- Jaehong Jeong, PhD student in Statistics, jointly with Soumen Lahiri, 2011 - present
- Soojin Roh, PhD student in Statistics, jointly with Marc Genton, 2010 - present
- Youli Mao, PhD student in Mathematics, jointly with Guido Kanschat (Mathematics) and Marc Genton, 2010 - present
- Paul Reed, MS student (distance degree) in Statistics, 2011 - present
- Justin Chown, MS student in Statistics, jointly with Mike Sherman, completed 2011

Services

- Editor, *Journal of Agricultural, Biological, and Environmental Statistics* (book review), September 1, 2011 - December 31, 2013
- Associate Editor, *Journal of the Korean Statistical Society*, 2008 - present
- Associate Director, Program in Spatial Modeling, Department of Statistics, Texas A&M University, May 2009 - present
- Organizer of an invited session, ISI, August 2013
- Co-organizer of the workshop on *Statistical methods for Climate problem*, IAMCS, Texas A&M University, Oct 2012 (schedule tentative)
- Organizer of a special topic session, ISBA, June 2012
- Organizer of an invited session, IMS-APRM, July 2012
- Organizer of an invited session, ENAR, Mar 2011
- Organizer of a topic contributed session, Joint Statistical Meeting, Aug 2010
- Co-organizer of the workshop on *Data assimilation in the Geosciences*, IAMCS, Texas A&M University, Oct 2009
- ASA/ENVR student award committee, 2006 - 2008
- Organizer of a session on *Environmental and Ecological Statistics*, Twelfth International Conference on Statistics, Combinatorics, Mathematics and Applications, Dec 2005
- Referee service: *Atmospheric Environment*, *JASA - T&M*, *JRSS B*, *JABES*, *JKSS*, *Bernoulli*, *Annals of Applied Statistics*, *Monthly Weather Review*, *Biometrics*, *Environmental and Ecological Statistics*, *Environmetrics*, *Annals of Statistics*, *JASA - ACS*, *JCGS*, *Mathematical Geosciences*, *Statistical Analysis and Data Mining*, *Journal of Climate*
- PhD thesis committee:
 - Kyoung-Lae Noh (Electrical Engineering) - completed 2007
 - Amanda Hering (Statistics) - completed 2009
 - Heeyoul Choi (Computer Science) - completed 2010
 - Elizabeth Kolodziej (Statistics) - completed 2010
 - Anh Dao (Statistics)
 - Fang-Yu Lin (Statistics)
 - Jinsu Kim (Statistics)
 - Sangshin Park (Vet school)
 - Bohai Zhang (Statistics)
 - Youngho Kim (Computer Science)
- MS thesis committee:
 - Matthew Rigney (Atmospheric Science) - completed 2009

Kyle Borg (Atmospheric Science) - completed 2009
Christina Holt (Atmospheric Science) - completed 2011
Michael Kavulich (Atmospheric Science) - completed 2011
Scott Goddard (Statistics)

Professional Associations

American Statistical Association
Institute of Mathematical Statistics
Korean International Statistical Society
Korean Statistical Society