

# PRIYA KOHLI

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## Education

**Ph.D. in Statistics** (expected June 2012),  
Texas A&M University  
Advisors: Dr. M. Pourahmadi and Dr. W. Chen.

**Master of Science in Applied Probability and Statistics** (2006-2008),  
Northern Illinois University  
Advisor: Dr. M. Pourahmadi.

**Master of Science in Agricultural Statistics** (2003-2006),  
Indian Agricultural Statistical Research Institute (IASRI), New Delhi, India  
Advisors: R. Srivastava and R. Parsad.

**Bachelor of Science (Honors) in Physics** (2000-2003),  
Delhi University, New Delhi, India.

## Research Interests

Time Series Analysis, Spatial Statistics, Missing Data Analysis, Modeling Covariance,  
Design of Experiments, and Interdisciplinary Research.

## Research Experience

### *Dissertation*

- Ph.D.: *Prediction and Estimation of Random Fields*, in progress, Texas A&M University.
- Masters: *Supersaturated Designs*, 2006, IASRI, New Delhi, India.

### *Graduate Research Assistant*

- Texas A&M University: included research projects and reading.
- Northern Illinois University: included research projects and journal editing.

## Teaching Experience

### *Instructor*

- Statistical Methods (upper-level), Department of Statistics, Texas A&M University. Primary classroom instructor with **sole responsibility** for a class of students from markedly diverse backgrounds.

Course	Semester	# of Students	Average Evaluation (Scale:1-5)
1	Spring 2009	50	4.10
2	Summer 2009	50	NA
3	Fall 2010	48	4.00
4	Spring 2011	49	4.15

- Elementary Statistics (upper-level), Division of Statistics, Northern Illinois University. Primary classroom instructor for 5 semesters with **sole responsibility** for a class of around 100 students from different majors.

### *Graduate Teaching Assistant*

- Distribution Theory (graduate-level), Department of Statistics, Texas A&M University. Responsibilities include having office hours, lab session, proctoring, making solution and grading assignments every week.
- Statistical Methods and Models (graduate-level), Division of Statistics, Northern Illinois University. I conducted help sessions and office hours, graded and prepared solutions for the weekly assignments.

### **Honors and Awards**

**Carol J. Feltz Awards**, Division of Statistics, Northern Illinois University, 2008.

**Junior Research Fellowship**, ICAR, 2003-2006.

Junior Research Fellowship, **All India Rank 5**, 2003.

Travel support for:

JSM 2011, Miami, 2011.

NBER-NSF Time Series Conference 2009, UC Davis.

Travel support for DAE Conference, 2008 University of Memphis.

### **Publications**

Published/Accepted Papers:

1. **Kohli, P.** and Pourahmadi, M., *Nonparametric estimation of the innovation variance and judging the fit of ARMA models*, Economic Time Series: Modeling and Seasonality, Eds. Bell, W., Holan, S. H. and McElroy, T. S., Chapman & Hall/CRC Press, 2011.
2. Zhang, Y., Madiri, S., Zhang, L. and **Kohli, P.**, *Statistical technique to handle data irregularities in field retroreflectivity of pavement markings*, Transportation Research Board 89th Annual Meeting, #10-3217, 2010. ([url](#))
3. Gupta, S. and **Kohli, P.**, *Analysis of supersaturated designs: a review*, Journal of Indian Society of Agricultural Statistics, 62(2), 156-168, 2008. ([url](#))

Submitted/Under Review Papers:

1. (with Garcia, T. and Pourahmadi, M.) *Regressograms and mean-covariance models for incomplete longitudinal data*, The American Statistician.

Working Papers:

1. (with Pourahmadi, M.) *Prediction of stationary random fields*, in preparation.
2. (with Pourahmadi, M.) *Worth of observations for spatial prediction*, in preparation.
3. (with Chen, W. and Pourahmadi, M.) *Fractional exponential models for long range dependent random fields*, in preparation.

Patent:

1. Srinivasan, S. and **Kohli, P.**, *System and method for automated handling of missing data in a multivariate, longitudinal setup*, Invention Disclosure, IR 2011/0121, Bosch Research Lab, 2011, submitted.

**Talks**

Nonparametric Estimation of Innovation Variance: A Case Study on the Wolfer's Sunspot Numbers, JSM, July 31, 2011.

Transition Models for Longitudinal Data, Texas A&M University, February 23, 2010.

Estimation of Innovation Variance for irregular time series data, Poster Presentation, NBER-NSF Time Series Conference, UC Davis, 2009.

Modeling Correlation Matrices, Division of Statistics, Northern Illinois University, 2008.

Orthogonal Arrays, Indian Agricultural Statistical Research Institute, 2006.

Block Designs with Factorial Structure, Indian Agricultural Statistical Research Institute, 2005.

**Professional Experience**

Data Mining and Machine Learning Group, **Bosch Research and Technology Center Lab**, Palo Alto, CA (May-Aug, 2010).

- Project: Data Mining for Smart Medical Logic.
- Developed statistical method to deal with missing observations which led to significant improvement in classification of high, medium and low risk patients.
- Submitted patent: "System and method for automated handling of missing data in a multivariate longitudinal setup".

**Affiliations**

American Statistical Association (ASA)  
Institute of Mathematical Statistics (IMS).

**Computational Skills**

Expertise in: C++, LATEX, Matlab, MS-Office, Python, R, SAS.  
Operating systems: Linux, Windows.  
**High Performance Computing:** Supercomputers and Computer Cluster.

**Selected Graduate Courses**

Advanced Biostatistics, Complex Analysis, Longitudinal Data Analysis, Measure Theory, Multivariate Analysis, Numerical Analysis, Advanced Statistical Computation, Statistical Limit Theory.

## References

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