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**Research Interests** Covariance Modeling, Longitudinal Data Analysis, Missing Data Analysis, Time Series, Spatial Statistics, and RNA-sequencing.

**Academic Appointments** Assistant Professor of Statistics, Department of Mathematics and Statistics, Connecticut College, New London, CT. August 2012-Present.

**Education** Ph.D. Statistics, Texas A&M University, 2012  
Dissertation Advisors: Dr. M. Pourahmadi and Dr. W. Chen.  
Dissertation Title: *Prediction and Estimation of Random Fields*.

M.S. Applied Probability and Statistics, Northern Illinois University, 2008

M.Sc. Agricultural Statistics, Indian Agricultural Stat Research Institute, 2006  
Dissertation Advisors: Dr. R. Srivastava and Dr. R. Parsad.  
Dissertation Title: *Supersaturated Designs*.

B.Sc.(Honors) Physics, Delhi University, India, 2003.

**Publications:  
Published and  
Working**

**Refereed Publications**

1. Kohli P., Siver P. A., Marsicano L., Hamer J. and Coffin A\*. (2017). [Assessment of Long-term Trends for Management of Candlewood Lake, Connecticut, USA](#), *Lake and Reservoir Management*, in press. Here \* denotes an undergraduate student.
2. Harvill J. L., Kohli P. and Ravishanker N. (2017). [Clustering nonlinear, nonstationary time series using BSLEX](#), *Methodology and Computing in Applied Probability*, in press. doi 10.1007/s11009-016-9528-1.
3. Kohli P. (2016). [Fractional Bivariate Exponential Estimator for Long-range Dependent Random Field](#), *Spatial Statistics*, **15**, 22-38.
4. Kohli P., Garcia T. P. and Pourahmadi M. (2016). [Modeling the Cholesky factors of covariance matrices of multivariate longitudinal data](#), *Journal of Multivariate Analysis*, **145**, 87-100.
5. Kohli P. and Pourahmadi M. (2014). [Some prediction problems for stationary random fields with quarter-plane past](#), *Journal of Multivariate Analysis*, **127**, 112-125.
6. Garcia T. P., Kohli P. and Pourahmadi M. (2012). [Regressograms and mean-covariance models for incomplete longitudinal data](#), *The American Statistician*, **66**, 85-91.
7. Kohli P. and Pourahmadi M. (2011). [Nonparametric estimation of the innovation variance and judging the fit of ARMA models](#), *Economic Time Series: Modeling and Seasonality*, Eds. Bell W., Holan S. and McElroy T., Chapman & Hall/CRC Press.
8. Gupta S. and Kohli P. (2008). Analysis of supersaturated designs: a review, *Journal of Indian Society of Agricultural Statistics*, **62**, 156-168.

## Patents

9. Srinivasan S. and **Kohli P.** (2014). *System and method for estimation in a multivariate, longitudinal setup*, WO2013126724 A2.
10. Srinivasan S. and **Kohli P.** (2013). *System and method for estimation of missing data in a multivariate, longitudinal setup*, US 20130226613 A1.

## Conference Papers

11. López-Anuarbe M. and **Kohli P.**. 2017. *Increasing support for men caregivers in the United States: A national study*, Society of Economics of the Household (SEHO).
12. Zhang Y., Madiri S., Zhang L. and **Kohli P.** (2010). *Statistical technique to handle data irregularities in field retroreflectivity of pavement markings*, Transportation Research Board 89th Annual Meeting, #10-3217.

## Blog (online work with student)

13. Whitney J., **Kohli P.** and Cangelosi J\*. (2015). *Keep the Talk Going, Dedicated to improving communication about relationships, sexuality, and intimacy*, May 2015. Here \* denotes an undergraduate student.

## Papers in Progress

14. Optimal site selection and spatial prediction.
15. Increasing support for men caregivers in the US: A national study.
16. A comparative analysis of covariance modeling techniques for multivariate longitudinal studies with application in clinical trials.
17. Covariance modeling for incomplete multivariate longitudinal data.
18. RNA-seq analysis of taste bud development in *Ambystoma Mexicanum*.
19. Biclustering with applications in RNA-sequencing.

## **Honors and Awards**

National Science Foundation (NSF) Travel Award, [24th ICSA/Graybill Joint Conference](#), Jun '15, Fort Collins, Colorado.

NSF Travel Award, [International Conference on Advances in Interdisciplinary Statistics and Combinatorics](#), Oct '14, Greensboro, NC.

National Institute of Statistical Sciences/American Statistical Association (NISS/ASA) Writing Award for Junior Researchers to support travel to attend [NISS/ASA Workshop](#), Jul '14 (Boston, MA) and Aug '13 (Montreal, Canada).

Young Researcher Award to support travel to attend [Dimension Reduction and High Dimensional Inference](#), University of Florida, Jan '14.

NSF Travel Grant for Junior Faculty, [2013 International Indian Statistical Association \(IISA\) Conference](#), Jan '13, Chennai, India.

[Carol J. Feltz Memorial Scholarship](#), Northern Illinois University, 2008.

[Council of Scientific and Industrial Research, National Junior Research Fellowship \(JRF\)](#), All India Rank 5, Indian Council of Agricultural Research, 2003-2006.

<b>Connecticut College Awards and Grants</b>	<p>Faculty-Student Engagement Fund in fall '14, '17 and spring '15, '16, '17.</p> <p><a href="#">Center for Teaching and Learning (CTL) Featured Assignment Recognition</a> in spring '16.</p> <p>R. F. Johnson Faculty Research Fund in Sep '12, Jul '13, Oct '13, Jan '14, and Oct '16.</p> <p>Research Matters Research Grant in Jun '14 and May '15.</p> <p>Susan Eckert Lynch '62 Faculty Research Funds in '14-'15 and '15-'16.</p>
<b>Meetings, Presentations, Workshops</b>	<p><b><u>Meetings</u></b></p> <p><a href="#">Women in Statistics and Data Science</a>, La Jolla, CA, Oct '17 (upcoming).</p> <p><a href="#">Connecticut Annual Statisticians Meeting</a>, Bristol, CT, Apr '17.</p> <p><a href="#">21st New England Isolated Statisticians Meeting (NEISM)</a>, Stonehill College, MA, Oct '16.</p> <p><a href="#">National Bureau of Economic Research and National Science Foundation (NBER-NSF) Time Series Conference</a>, Columbia University, NY, Sep '16.</p> <p><a href="#">International Conference on Mathematics and Statistics</a>, Boston, MA, Apr '16.</p> <p><a href="#">Thirteenth Annual ASA CT Chapter Mini-Conference Using Statistical Models for Prediction</a>, University of Connecticut Health Center, Farmington, CT, Apr '15.</p> <p><b><u>Invited Presentations</u></b></p> <p>RNA-Sequencing, <i>Recent Developments in Bioinformatics</i>, <a href="#">2017 IISA Conference</a>, Hyderabad, India, Dec '17 (upcoming).</p> <p>Modeling Dependence in Multivariate Longitudinal Studies, Faculty at Work, Connecticut College, CT, Nov '16.</p> <p>Covariance Modeling of Multivariate Longitudinal Data with Application in Clinical Trials, <a href="#">2015 IISA Conference</a>, Pune, India, Dec '15.</p> <p>Clustering of Nonlinear and Nonstationary Time Series Using BSLEX, Syracuse University, NY, Nov '15.</p> <p>Clustering Time Series: A PSLEX-Based Approach, <a href="#">Advanced Development in Big Data Analytics Tools</a>, 24th ICSA/Graybill Joint Conference, Fort Collins, Colorado, Jun '15.</p> <p>Time Series Clustering, <a href="#">International Conference on Advances in Interdisciplinary Statistics and Combinatorics</a>, Greensboro, NC, Oct '14.</p> <p>Prediction of Stationary Random Fields with Quarter-Plane Past: A Time-Series Approach, International Society of Nonparametric Statistics Conference, Spain, Jun '14.</p> <p>Clustering Financial Time Series, <a href="#">International Symposium on Business and Industrial Statistics (ISBIS)</a>, Duke University, NC, Jun '14.</p> <p>Covariance Modeling for Incomplete Multivariate Longitudinal Data, Department of Statistics, University of Connecticut, Storrs, CT, Oct '13.</p> <p><b><u>Contributed Presentations</u></b></p> <p>Technology: An Indispensable Tool for Teaching Statistics in the 21st Century, 27th International Conference on Technology in Collegiate Mathematics, Las Vegas, NV, Mar '15.</p> <p>Restricted Linear Covariance Models for Multivariate Longitudinal Data, <a href="#">16th Meeting of New Researchers in Statistics and Probability</a>, Harvard University, Boston, MA, Jul '14.</p> <p>Covariance Estimation for Multivariate Longitudinal Data, <a href="#">Dimension Reduction and High Dimensional Inference</a>, University of Florida, Gainesville, FL, Jan '14.</p> <p>Multivariate Longitudinal Analysis with Missing Data, <a href="#">2013 Joint Statistical Meetings (JSM)</a>, Montreal, Canada, Aug '13.</p>

Optimal Site Selection and Spatial Prediction, [2013 IISA Conference](#), Chennai, India, Jan '13.

Long Range Dependent Random Fields with Applications in Agricultural Trials, [International Conference on Statistics and Informatics in Agricultural Research](#), New Delhi, India, Dec '12.

Long Range Dependent Random Fields: Fractional Exponential Models, [NBER-NSF Time Series Conference](#), Texas A&M University, College Station, TX, Oct '12.

Prediction and Estimation of Random Fields, [2012 JSM](#), San Diego, CA, Aug '12.

Some Prediction Problems for Stationary Random Fields, Department of Mathematical Sciences, Georgia Southern University, GA, Mar '12.

### **Workshops**

Participant in Tempel Summer Institute, Connecticut College, Jun '16 and June '17.

Organized and conducted a two-day workshop on introducing R for applications in life sciences, Connecticut College, Jul '15.

GCAT-SEEKquence workshop, *The Genome Consortium for Active Teaching NextGen Sequencing Group*, Juniata College, PA, Jun '15.

Co-organized and conducted a three-day workshop on introducing the recent advances in statistical techniques for researchers in Biology, Botany and Neuroscience, Connecticut College, CT, Jan '014.

Workshop series on developing book and fellowship proposals, Connecticut College, Sep '12.

### **Teaching at Connecticut College**

1. Introduction to Statistics: fall '13 and spring '15, '16
2. Introduction to Statistical Methods: fall '12, '13, '14
3. Advanced Regression Techniques: spring '13, and fall '13, '14
4. Introduction to Time Series Analysis: spring '14, '15, '16, '17
5. Probability: fall '12, and spring '14, '17
6. Mathematical Statistics: spring '13, '16 and fall '14, '17
7. Statistical Computing with R: fall '17
8. Individual Study: fall '13, '14 and spring '15, '14

### **Service**

#### **Connecticut College**

- Committees: Committee on Faculty Compensation (CFC), Committee on Academic Standing (CAS), and Committee on the Status of Faculty Women (CSFW).
- Member of the core working group for the Public Health Pathway.
- Organized statistics workshops in winter 2014 and summer 2015 for faculty in life sciences.
- Faculty Connections Program.
- Ammerman Center for Arts and Technology (CAT) Fellow.
- Judge in the Annual Summer Research Student Poster Sessions.

## Department of Mathematics and Statistics

- Math major and Applied Statistics minor advisor.
- Search committee member: Math tenure-track, three-year visiting, two-year visiting, and visiting lecturer.
- Mentor for *Women in Math Group*, Connecticut College.
- Mentored student teams participating in DATAFEST, Wesleyan University, '16 and '17.

## Professional

- Peer reviewer for the journals *Computational Statistics and Data Analysis*, *Electronic Journal of Statistics*, *Journal of Multivariate Analysis*, *MAA Book Reviews*, *Mathematical Reviews*, *Scandinavian Journal of Statistics*, *Statistica Sinica*, *Statistica Neerlandica*, *Statistics and Probability Letters*, *Stochastic Processes and their Applications*.
- Chaired invited session “Computer-intensive methods and geographically-referenced data: A blissful marriage against all odds?”, Joint Statistical Meetings (JSM), '13.
- Participated in AP Statistics Faculty Colloquium, Apl '13, Chicago IL.
- Mentor in the *Association for Women in Mathematics (AWM)*, fall '15-present.
- Judged the Undergraduate Statistics Project Competition (USPROC), '17.
- Professional Memberships: *American Statistical Association (ASA)*, *Association for Women in Mathematics (AWM)*, *Eastern North American Region/International Biometric Society (ENAR)*, *Institute of Mathematical Statistics (IMS)*, *International Indian Statistical Association (IISA)*.