Soudeep Deb

Contact Department of Statistics

University of Chicago

George Herbert Jones Laboratory

5747 S. Ellis Avenue Chicago, IL, USA, 60637

CITIZENSHIP India

Research Interests Time series data, Spatio-temporal modeling, Spatial statistics, Inference for random processes, Application of statistics in sports.

EDUCATION

University of Chicago, Chicago, IL, USA.

Ph.D., Statistics

Aug 2018 (expected)

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- Thesis: Irregular spaced random field, Spatio-temporal data and Clustering of time series
- Advisor: Dr. Wei Biao Wu
- Other committee members: Dr. Ruey S. Tsay and Dr. Michael L. Stein

Indian Statistical Institute, Kolkata, WB, India.

Master of Statistics (M. Stat.)

May 2013

- First Division with Distinction
- Specialization: Mathematical Statistics and Probability
- Dissertation: Association analysis for identifying rare genetic variants
- Advisor: Dr. Saurabh Ghosh

Bachelor of Statistics (B. Stat.)

May 2011

• First Division with Distinction

Honors University of Chicago:

• International House Ralph W. Nicholas Fellowship Award	2017-18
• Graduate Council Travel Fund Award	2017
• Senior Consultant, Department of Statistics	2016-17
• Runner-up for Department of Statistics Consulting Award	2016
• Nominated for Best Teaching Assistant in Physical Sciences Division	Winter 2014

Other Awards:

•	Kishore Vaigyanik Protsahan Yojana scholarship, Indian Institute of Science	2007 to 2013
•	Selected for International Mathematical Olympiad Training Camp, India	2007 & 2008

Teaching EXPERIENCE

Instructor, at University of Chicago:

- Introductory Statistics, Chicago Academic Achievement Program. Summers of 2015, 2017 • Statistical Models and Methods I Winter 2015
- **Teaching Assistant**, at University of Chicago:

• Statistical Theory and Methods I

Winter 2014, Autumns of 2014, 2016, 2017

• Bayesian Analysis and Principles of Statistics

Spring 2017 Springs of 2014, 2016

• Statistical Theory and Methods II

• Applied Linear Statistical Methods

Autumn 2015

PUBLICATIONS AND ONGOING RESEARCH

- 1. **Deb, S.**, Wu, W. B.; Clustering of Time Series Data using Spectral Density Estimates; In preparation.
- 2. **Deb, S.**, Tsay, R. S.; Spatio-temporal Models with Space-time Interaction and Their Applications to Air Pollution Data; Under review.
- 3. **Deb, S.**, Pourahmadi, M., Wu, W. B. (2017); An Asymptotic Theory for Spectral Analysis of Random Fields; Electronic Journal of Statistics, Vol. 11, No. 2, p. 4297-4322.
- 4. **Deb, S.** (2017); VAR model based clustering method for multivariate time series data; In XXXIV. International Seminar on Stability Problems for Stochastic Models, p. 28.
- 5. **Deb, S.**, Dey, D. (2017); Spatial Modeling of Shot Conversion in Soccer to Single out Goalscoring Ability; Under review, Preprint: https://arxiv.org/abs/1702.05662.
- Chazin, H., Deb, S., Falk, J., Srinivasan, A. (2017); New Statistical Approaches to Intraindividual Isotopic Analysis and Modeling Birth Seasonality in Studies of Herd Animals; Under revision, Archaeometry.
- 7. Prickett, K.C., Guiterrez, C., **Deb, S.**; U.S. Family Firearm Ownership and Firearm-Related Child Mortality from 1976 to 2014, In preparation.
- 8. Zechner, C., **Deb, S.**, Koeppl, H. (2013); Marginal Dynamics of Stochastic Biochemical Networks in Random Environments; In Control Conference (ECC), 2013 European, p. 4269-4274, IEEE.
- 9. Ghosh, S., **Deb**, **S.** (2013), A Clustering Approach for Mapping Rare Variants Based in Mutual Association. Human Heredity, Vol. 76, No. 2, pp. 98-98.

OTHER EXPERIENCE

Instituto de Pesquisa Ambiental do Amazônia, Brasília, Brazil

Jun - Aug 2016

- Position: Summer fellow.
- Project: Hydropower Construction and Deforestation in the Tapajós River Basin: Linking Forest Cover to Changes in Water Balance.

Eidgenossische Technische Hochschule (ETH), Zurich, Switzerland May - Jul 2013

- Position: Summer research intern.
- Project: Moment-Closure Approximations for Mass-action Models in Chemical Kinetics.

Eidgenossische Technische Hochschule (ETH), Zurich, Switzerland Jun - Jul 2012

- Position: Summer research intern.
- Project: Marginal Dynamics of Stochastic Biochemical Networks in Random Environments.

Ministry of Statistics and Programme Implementation, Govt. of India May 2012

- Position: Team member
- Project: Forecasting of Foreign-tourist Arrivals in India.

Johns Hopkins University, Baltimore, United States of America

May - Jul 2011

- Position: Summer research intern
- Project: Estimating the Genetic Relationship between two Random Individuals from Genome Sequence Data.

PEER REVIEW SERVICES

PEER REVIEW Reviewer for the following journals:

- Electronic Journal of Statistics
- Statistics and Probability Letters
- Linear Algebra and its Applications

Presentations

- (Invited talk) Spatio-temporal Models with Space-time Interaction and Their Applications to Air Pollution Data. Statistics colloquium, Division of Statistics, Northern Illinois University, Dekalb, USA.
- (Contributed talk) VAR Model Based Clustering Method for Multivariate Time Series Data. XXXIV. International Seminar on Stability Problems for Stochastic Models, Debrecen, Hungary.
 Aug 2017
- 3. (Contributed talk) Spatio-temporal Models with Space-time Interaction and Their Applications to Air Pollution Data. NBER/NSF Time Series Conference, New York, USA. Sep 2016
- (Invited talk) Hydropower Construction and Deforestation in the Tapajós River Basin: Linking Forest Cover to Changes in Water Balance. Symposium on deforestation, Ministry of Environment, Brasília, Brazil.

 Aug 2016
- 5. (Poster) Estimating the Genetic Relationship between two Random Individuals from Genome Sequence Data. Young Statisticians Conference, Melbourne, Australia. Feb 2013
- (Contributed talk) Estimating the Genetic Relationship between two Random Individuals from Genome Sequence Data. Conference on Contemporary Issues and Applications in Statistics, Kolkata, India.
- (Invited talk) Estimating the Genetic Relationship between two Random Individuals from Genome Sequence Data. D. Basu Memorial Award Lecture Series, Indian Statistical Institute, Kolkata, India.

OTHER INFORMATION

Technical strength:

• R, MATLAB, Python, C, LATEX, Microsoft Office.

Languages:

- Fluent in reading, writing, speaking: English, Bengali, Hindi.
- Basic reading and speaking: Portuguese.