

Soumyakanti Pan

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EDUCATION

- 2021 – 2025 **PhD, Biostatistics** (expected 2025)
University of California Los Angeles, Los Angeles, USA
Thesis title: “*Bayesian Modeling and Inference for Complex Dependent Non-Gaussian Data*”
Thesis advisor: [Prof. Sudipto Banerjee](#)
- 2019 – 2021 **M.Stat, Statistics** (First Division with Distinction)
Indian Statistical Institute, Kolkata, India
- 2016 – 2019 **B.Stat (Hons.), Statistics** (First Division)
Indian Statistical Institute, Kolkata, India



AWARDS AND ACHIEVEMENTS

- Dissertation Year Award 2024-25, UCLA (USD 20,000 in fellowship & USD 19,487 in tuition grant)
- Summer Mentored Research Fellowship 2022 & 2024, UCLA (USD 6,000 each award)
- University Fellowship 2021-22, UCLA Division of Graduate Education (USD 14,863)
- Indian Statistical Institute stipend and yearly contingency grant 2016-2021
- 2nd position, Advanced Mathematical Ability Test 2015, Calcutta Mathematical Society

PUBLICATIONS AND PREPRINTS

2. **Pan, S.**, Zhang, L., Bradley, J. R., & Banerjee, S. (2024). Bayesian inference for spatial-temporal non-Gaussian data using predictive stacking. <https://doi.org/10.48550/arXiv.2406.04655>
1. **Pan, S.**, Das, D., Ramachandran, G., & Banerjee, S. (2024). Bayesian hierarchical modeling and inference for mechanistic systems in industrial hygiene. *Annals of Work Exposures and Health*, 68(8), 834–845. <https://doi.org/10.1093/annweh/wxae061>

SOFTWARE

1. **spStack**: Bayesian Geostatistics Using Predictive Stacking.   [\[Website\]](#)
Fast Bayesian inference for Gaussian and non-Gaussian geospatial models without using Markov chain Monte Carlo algorithms. This R package is written in C++ with calls to FORTRAN routines for optimized linear algebra operations. <https://doi.org/10.32614/CRAN.package.spStack>

CONFERENCE PRESENTATIONS

4. Theory and Foundations of Statistics in the Era of Big Data. Tallahassee, USA, April 2024. *Poster*
3. The Bayesian Young Statisticians Meeting, *j-ISBA*, November 2023. Virtual. *Short Talk*
2. Joint Statistical Meetings. Toronto, Canada, August 2023.
Topic Contributed Paper session: Recent advances in uncertainty quantification for complex systems
1. UCLA-UCI-KAUST Meeting. Los Angeles, USA, March 2023.

SKILLS

Programming: R, C++, Julia; *Other*: Git, C.I., UNIX-command line, \LaTeX

TEACHING EXPERIENCES

Spring 2024	Teaching Assistant, <i>Biostatistics 250C: Multivariate Biostatistics</i> Department of Biostatistics, UCLA
Winter 2024	Teaching Assistant, <i>Biostatistics 250B: Linear Statistical Models</i> Department of Biostatistics, UCLA
Fall 2023	Teaching Assistant, <i>Biostatistics 241: Spatial Modeling and Data Analysis</i> Department of Biostatistics, UCLA
Fall, Winter 2021 – 2022	Special Reader, <i>Biostatistics 255A,B: Measure Theoretic Probability</i> Department of Biostatistics, UCLA
2019 – 2021	Instructor for Mathematics Competitions, RKMV Narendrapur, India Topics: <i>Combinatorics, Number Theory, Polynomials, Inequalities, Real Analysis</i>

EMPLOYMENT

Sep 2021 – present	Graduate Student Researcher, <i>Department of Biostatistics, UCLA</i> Supervisor: Prof. Sudipto Banerjee
Jun 2019 – Aug 2019	Short-term Trainee, <i>National Institute of Biomedical Genomics, India</i> Supervisor: Dr. Samsiddhi Bhattacharjee

OTHER RESEARCH PROJECTS

Winter 2023	A note on molecular dating: Estimation of divergence time in amphipods Class Project , <i>Mathematical and Statistical Phylogenetics</i> , Prof. Marc Suchard	UCLA
2020 – 2021	Distribution-free correlation based tests to differentiate between related populations Masters Thesis. <i>Advisor</i> : Prof. Saurabh Ghosh	ISI, Kolkata
2020 – 2021	An exploratory analysis of a multi-layered network data on inter-state military alliances, conflicts and trade relations <i>Advisor</i> : Prof. Diganta Mukherjee	ISI, Kolkata
Summer 2019	Nonparametric estimation of alternate density for mixture modelling with applications to large-scale multiple testing in genomics <i>Advisor</i> : Dr. Samsiddhi Bhattacharjee	NIBMG, Kalyani
Spring 2019	Estimation of origin-destination matrix from traffic and ticket counts Joint work with A Bhattacharyya, S Ghosh Dastidar	ISI, Kolkata

POSITIONS OF RESPONSIBILITY

- Head of Sports Chapter of college fest Integration, 2017-2019
- Elected student representative in ISI Club, 2016-2021
- General Affairs committee of ISI Boys' Hostel, 2018-2020