Soham Jana

Yale University
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New Haven, CT-06511

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Research Interests

Theoretical and algorithmic aspects of Empirical Bayes, minimum distance estimation, estimation on Markov chains

Education

- **PhD. in Statistics and Data Science**,   2017–2022 (expected)
  Yale University, New Haven, CT, USA
  Thesis: Minimax estimation on dependent and independent data
  Advisor: Yihong Wu

- **Master of Statistics (Hons.)** (First class with Distinction)   2015–2017
  Indian Statistical Institute, Kolkata, West Bengal, India
  Specialization: Theoretical Statistics
  Dissertation: Characterization of single integral non-kernel divergences
  Advisor: Ayanendranath Basu

- **Bachelor of Statistics (Hons.)** (First class with Distinction)   2012–2015
  Indian Statistical Institute, Kolkata, West Bengal, India

Publications (Authors lists that are not in alphabetical order are denoted with "*".)

1. Yanjun Han, Soham Jana, and Yihong Wu. **"Optimal prediction of Markov chains with and without spectral gap"**. Submitted to NeurIPS 2021. https://arxiv.org/abs/2106.13947

2. Soham Jana, Yury Polyanskiy, and Yihong Wu. **"Extrapolating the profile of a finite population"**. In Conference on Learning Theory 2020 Jul 15 (pp. 2011-2033). PMLR.

3. Soham Jana and Ayanendranath Basu.* **"A characterization of all single-integral, non-kernel divergence estimators"**. IEEE Transactions on Information Theory 65.12 (2019): 7976-7984.

Honors and Awards

INSPIRE Scholarship, Govt. of India   2012-2017

Indian National Mathematical Olympiad(INMO) merit certificate   2012
(For being among top 75 in the country)

Graduate teaching assistance

Stochastic processes   Spring 2021
S&DS 351–551/EENG 434/ENAS 502
Instructor: Joseph Chang

Information Theory   Fall 2020
S&DS 364–664/EENG 454
Instructor: Andrew Barron

Probability Theory   Fall 2019
S&DS 241–541
Instructor: Winston Lin

Advanced Probability   Spring 2019
S&DS 400–600/Math 600
Instructor: Sekhar Tatikonda

Statistical Inference   Fall 2018
S&DS 410–610
Instructor: Zhou Fan

Languages

R, Python

Social activities

- **Treasurer and Board member**   June 2018–March 2021
  South Asian Graduate and Professional Association (SAGA)
  Yale University, New Haven, CT, USA

- **Graphics designer**   June 2018–June 2020
  South Asian Graduate and Professional Association (SAGA)
  Yale University, New Haven, CT, USA

- **Graphics designer**   June 2015–June 2017
  Integration (Annual techno-cultural-sports fest)
  Indian Statistical Institute, Kolkata, West Bengal, India.

References

Yihong Wu   **Andrew Barron**
Associate Professor,   Charles C. and Dorothea S. Dilley Professor
Statistics and Data Science,   of Statistics & Data Science,
Yale University   Yale University,
New Haven, CT, USA   New Haven, CT, USA

Yury Polynskiy
Associate Professor,
Electrical Engineering and Computer Science,
Massachusetts Institute of Technology
Cambridge, MA, USA