

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

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| Stochastic processes S&DS 351–551/EENG 434/ENAS 502 Instructor: Joseph Chang | Spring 2021 |
| Information Theory S&DS 364–664/EENG 454 Instructor: Andrew Barron | Fall 2020 |
| Probability Theory S&DS 241–541 Instructor: Winston Lin | Fall 2019 |
| Advanced Probability S&DS 400–600/Math 600 Instructor: Sekhar Tatikonda | Spring 2019 |
| Statistical Inference S&DS 410–610 Instructor: Zhou Fan | Fall 2018 |

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
Associate Professor,
Statistics and Data Science,
Yale University
New Haven, CT, USA

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

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