

Rohan Hore

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Academic Appointments

Postdoctoral Scholar, Carnegie Mellon University Aug 2025 – Present
Advisor: Aaditya Ramdas

Education

PhD in Statistics, University of Chicago 2020 – 2025
Advisor: Rina Foygel Barber

M.Stat. in Statistics, Indian Statistical Institute, Kolkata 2018 – 2020
Advisor: Abhik Ghosh
Specialization: Probability

B.Stat. in Statistics, Indian Statistical Institute, Kolkata 2015 – 2018

Research Visits and Internships

Student Visitor, Statistical Laboratory, University of Cambridge 2023
Host: Richard J. Samworth

Intern, TCS ION, Kolkata 2016–2017
Project: Performance analytics for large-scale online assessments

Journal Articles

Hore, R. and Barber, R.F. “Conformal prediction with local weights: randomization enables local guarantees.” *Journal of the Royal Statistical Society, Series B*, 2024. ArXiv: [2310.07850](https://arxiv.org/abs/2310.07850)

Gui, Y., Hore, R., Ren, Z., and Barber, R.F. “Conformalized survival analysis with adaptive cutoffs.” *Biometrika*, 2023. ArXiv: [2211.01227](https://arxiv.org/abs/2211.01227)

Hore, R. and Ghosh, A. “Robust and efficient parameter estimation for discretely observed stochastic processes.” *Annals of the Institute of Statistical Mathematics*, 2024. ArXiv: [2204.05028](https://arxiv.org/abs/2204.05028)

Preprints

Hore, R. and Ramdas, A. “Conformal changepoint localization.” ArXiv: [2602.06267](https://arxiv.org/abs/2602.06267)

Hore, R. and Barber, R.F. “Distribution-free two-sample testing with blurred total variation distance.” ArXiv: [2602.05862](https://arxiv.org/abs/2602.05862)

Hore, R., Soloff, J., Barber, R.F., and Samworth, R.J. “Conditional independence testing under shape constraints.” ArXiv: [2501.06133](https://arxiv.org/abs/2501.06133)

Hore, R., Wang, R., and Ramdas, A. “Online monotone density estimation and log-optimal calibration.” ArXiv: [2602.08927](https://arxiv.org/abs/2602.08927)

Chatterjee, A., Choudhury, S., and Hore, R. “One-shot conditional sampling: MMD meets nearest neighbors.” ArXiv: [2509.25507](https://arxiv.org/abs/2509.25507)

Selected Presentations

- Conformal changepoint localization, Northwestern University Workshop on Uncertainty Quantification, 2025.
- Making prediction intervals smarter: randomization enables local coverage, International Indian Statistical Association Conference, 2025.
- Harnessing monotonicity: theory, practice, and promise, University of Chicago CAM and STATS student seminar, 2025.
- Monotonicity meets conditional independence testing, Data Science Institute Research Day, University of Chicago, 2024.
- Conformal prediction with local weights: randomization enables robust guarantees, Michigan Biostatistics mHealth Group, 2023.
- Conformalized survival analysis with adaptive cutoffs, ICML Workshop on Distribution-Free Uncertainty Quantification, 2022.

Teaching

Instructor, University of Chicago

- Statistical Models and Methods (Stat 23400), 2023
- Applied Statistics Qualifying Exam Workshop, 2023–2024

Teaching Assistant, University of Chicago

- Generalized Linear Models (Stat 34700)
- Multiple Testing and Modern Inference (Stat 27850)
- Stochastic Processes I (Stat 31200)
- Mathematical Probability (Stat 25100/25150)
- Probability Models (Stat 31700)

Honors and Awards

- Senior Consultant Recognition Award, Statistical Consulting Program, University of Chicago (2022, 2023)

- Dean's List, Indian Statistical Institute (2015–2020)

Service

Reviewer: *Biometrika, Statistics and Computing*