Faculty Profile(RR)

Name: Rahul Roy

Designation: Assistant Professor.

Department: Department of Statistics.

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Qualification:

- B.Sc.(Hons.) in Statistics, Ramakrishna Mission Residential College (Autonomous), Narendrapur (2016).
- M.Stat, Indian Statistical Institute (2018).
- Pursuing Ph.D. in Statistics form Indian Statistical Institute (Since 2018).

Doctoral Thesis: (in preparation) "Large-scale asymptotics in fixed sample and sequential multiple testing."

Teaching Experience:

- Assisted Professor Subir Kumar Bhandari in Theory of Games and Statistical Decision for M.Stat. 2nd year in spring 2021 (ISI Kolkata).
- Assisted Professor Subir Kumar Bhandari in Time Series Analysis for M.Stat. 2nd year in fall 2021 (ISI Kolkata).
- Assisted Professor Subir Kumar Bhandari in Theory of Games and Statistical Decision for M.Stat. 2nd year in spring 2022 (ISI Kolkata).

- Assisted Professor Debasis Sebgupta in Multiple Linear Regression for PGDSA course (jointly organized by ISI and Coursera) in spring 2023.
- I have been teaching at the Department of Statistics and Postgraduate Department of Data Science at St. Xavier's College (Autonomous), Kolkata, since July 2023.

Research Interests:

- Multiple Testing.
- Sequential Testing.
- Multivariate Analysis.
- Machine Learning.

Publications:

1. Roy, R., & Bhandari, S. K. (2024). Asymptotic Bayes' optimality under sparsity for exchangeable dependent multivariate normal test statistics. *Statistics & Probability Letters*, 207, 110030.

Manuscripts in Preparation:

- Roy, R., De, S. K., & Bhandari, S. K. (2023). Large-scale adaptive multiple testing for sequential data controlling false discovery and nondiscovery rates. arXiv preprint arXiv:2306.05315. (Submitted to JSPI).

Participation in Conference/Seminar/Workshop:

- Participated and delivered a contributory lecture on "Asymptotic bayes optimality under sparsity for equicorrelated multivariate normal test statistics" in a conference organized by International Indian Statistical Association (IISA) at IISC Bangalore in December, 2022.
- Delivered an invited lecture on "Large-scale Adaptive Multiple Testing for Sequential Data Controlling False Discovery and Non-discovery Rates" in a seminar arranged by the Applied Statistics Unit, ISI, Kolkata on 28th November 2023.

- Delivered an invited lecture on "Large-scale Sequential Multiple Testing Controlling FDR and FNR Simultaneously" in a workshop on multiple testing organised by the Department of Statistics, University of Calcutta on 6th January, 2024.