Suman Sarkar

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RESEARCH INTERESTS Sequential Methods in Statistics, Clinical Trials, Odds Ratio.

EDUCATION

• PhD in Statistics.

Indian Statistical Institute, Kolkata.

August 2012 - June 2018.

Thesis submitted: June 2018, PhD degree awarded: June 2020.

Advisor: Prof. Atanu Biswas

Title of the thesis: Some Sequential Methodologies on Different Types

of Odds Ratios in Clinical Trials

• M. Sc. (Statistics).

University of Kalyani, West Bengal.

2009 - 2011.

Stood first in the first class.

• B. Sc. (Statistics Honours).

Presidency College, Kolkata.

2004 - 2007.

• Higher Secondary.

Kanailal Vidyamandir, Chandannagore, Hooghly.

2002 - 2004.

• Secondary.

Durga Charan Rakshit Banga Vidyalaya, Chandannagore,

Hooghly.

2000 - 2002.

JOURNAL ARTICLES

- 1) Bandyopadhyay, U., **Sarkar**, **S.**, Biswas, A. (2024) Sequential Estimation of Conditional Odds Ratio. *Journal of the Indian Society for Probability and Statistics* (Invited article).
- 2) Bandyopadhyay, U., **Sarkar**, **S.**, Biswas, A. (2024). Fixed-width confidence interval of log odds ratio in correlated set-up for crossover design. **Sequential Analysis Design Methods and Applications** 43(1): 49-56.
- 3) Bandyopadhyay, U., **Sarkar**, **S.**, Biswas, A. (2022). Sequential Confidence Interval for Comparing Two Bernoulli Distributions in a Non-conventional Set-up. *Statistics and Probability Letters* 181 (2022) 109263.
- 4) Bandyopadhyay, U., **Sarkar**, **S.**, & Biswas, A. (2021). Fixed-width Confidence Interval for Treatment Difference in Multinomial Sampling. *Sequential Analysis Design Methods and Applications* 40(2):198-208.
- 5) Sarkar, S., Biswas, A. & Mukherjee, S. (2019). Odds ratio based two-stage group sequential analysis for two-treatment two-period crossover trials. *Communications in Statistics: Case Studies, Data Analysis and Applications* 5(4): 300-313.
- 6) Bandyopadhyay, U., **Sarkar, S.** & Biswas, A. (2017). Fixed-width Confidence Interval of Log Odds Ratio for Joint Binomial and Inverse Binomial Sampling. **Sequential Analysis Design Methods and Applications** 36(3): 345-354.
- 7) Sarkar, S., & Biswas, A. (2016). Odds Ratio Based Group Sequential Analysis for Joint Binomial and Inverse Binomial Sampling. Sequential Analysis Design Methods and Applications 35(2): 207-215.

Work Experience

• Assistant Professor of Statistics, Department of Rural Studies, Visva-Bharati.

January 2022 - present.

- Assistant Professor of Statistics, St. Xavier's University, Kolkata. September 2020 December 2021.
- Senior Consultant, PricewaterhouseCoopers Pvt. Ltd (PwC), Kolkata.

April 2019 - September 2020.

- Visiting Scientist, Indian Statistical Institute, Kolkata. October 2018 – March 2019.
- Lead Statistician, GlaxoSmithKline Asia Pvt. Ltd (GSK), Bangalore.

June 2018 – September 2018.

• Project Assistant, Indian Statistical Institute, Kolkata. October 2011 – July 2012.

Invited talks

• Eleventh International Triennial Calcutta Symposium, organized jointly by the Department of Statistics, University of Calcutta and Calcutta Statistical Association, Kolkata, India (2024).

Title: "Sequential Estimation of Non-conventional Odds Ratios"

• Department of Dermatology, Malda Medical College, India (2024).

Title: "Biostatistics: Data Analysis and Interpretation for Medical Graduates"

Conferences

• Conference for Statistics and Programming in Clinical Research (ConSPIC), organized by Indian Association for Statistics in Clinical Trials, Hydrabad, India (2016).

Poster presentation: "Two stage group sequential analysis on crossover data based on binary responses"

• International Triennial Calcutta Symposium on Probability and Statistics, Calcutta, India (2015).

Contributed talk : "Odds Ratio Based Group Sequential Analysis for Joint Binomial and Inverse Binomial Sampling"

• The IISA Conference on Research Innovations in Statistics for Health, Education, Technology and Society, California, USA (2014).

Contributed talk : "Odds Ratio Based Group Sequential Analysis for Joint Binomial and Inverse Binomial Sampling"

Courses Taught

- Elementary Econometrics.
- Quantitative Techniques.
- Business Mathematics and Statistics.

AWARDS

- 'Bose-Nandi award' given by Calcutta Statistical Association (2019).
- Winner of the 'Student poster presentation', at the Conference for Statistics and Programming in Clinical Research (ConSPIC), organized by Indian Association for Statistics in Clinical Trials (2016).
- Awarded by Government of West-Bengal, for securing first position in M.Sc Examination on Statistics Day (29th June, 2012).
- Saroj Behari Dasgupta Memorial Endowment Award (Stood first class first in M.Sc) from University of Kalyani (2011).

EDITORIAL ACTIVITIES

Reviewer of Sequential Analysis Design Methods and Applications, Communications in Statistics – Theory and Methods.

TECHNICAL EXPERTISE Programming Language: R.

Administrative

WORKS

AT VISVA-Bharati

- Member of Research advisory committee
- Member of anti-ragging squad
- Member of Departmental Quality Assurance Cell
- Student mentoring
- OASIS Fellowship

Personal Information • Date of birth: 21st February, 1987.

• Gender : Male.

• Marital status: Married.

• Languages known: English, Hindi, Bengali.

• Hobbies : Writing (published few articles, stories in various bengali news-

papers), Reading, Music, Movies, Traveling, Documentary.

References

Dr. Atanu Biswas

Dr. Nitis Mukhopadhyay

Professor

Professor

Applied Statistics Unit

Department of Statistics

Indian Statistical Institute, Kolkata

University of Connecticut, Storrs, United States

atanu@isical.ac.in

nitis.mukhopadhyay@uconn.edu

Dr. Samarjit Das

Professor

Economic Research Unit

Indian Statistical Institute, Kolkata

samarjit@isical.ac.in