

## Dr Biman Chakraborty PhD

Lecturer

**[School of Mathematics \(/schools/mathematics/index.aspx\)](/schools/mathematics/index.aspx)**

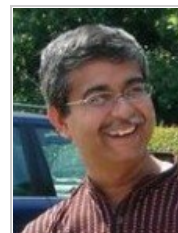
### Contact details

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### About

Biman Chakraborty is a Lecturer in Statistics. He has published several research papers in premier International Statistics journals as well as reviews and book chapters in nonparametric multivariate statistics, statistical computing and statistical reliability. He acts as reviewer to many International journals regularly. He also received many research grants from various agencies in his career.

He is an enthusiastic lecturer who teaches different modules in statistics at the undergraduate and postgraduate levels. He is also experienced in conducting several training sessions on statistics/ statistical software in the Industry. Biman also provided statistical consultancy on several occasions to private and governmental agencies.

School web page: [web.mat.bham.ac.uk/~chakrabb/index.htm](http://web.mat.bham.ac.uk/~chakrabb/index.htm) (<http://web.mat.bham.ac.uk/~chakrabb/index.html>)

### Qualifications

- PhD in Statistics, Indian Statistical Institute, 1998
- M.Stat., Indian Statistical Institute, 1994
- B.Stat. (Hons.) Indian Statistical Institute, 1992

### Biography

Biman Chakraborty received his Master of Statistics in 1994 from the Indian Statistical Institute, Kolkata, India and went on to do a PhD under the supervision of Prof. Probal Chaudhuri in the area of multivariate statistics. After completing his PhD, he joined the National University of Singapore as an assistant professor of Statistics in 1998. He joined the School of Mathematics at the University of Birmingham in 2007.

Over the years, he has produced several research papers in the area of multivariate nonparametric statistics and statistical computing. He has several collaborators in Europe and India. He also successfully secured a few research grants while in Singapore.

He served as a reviewer to many internationally reputed journals and as external examiner to several PhD candidates from different universities.

Biman provides statistical consultancy services and training to the Industry and government agencies.

### Teaching

- Single Honours Mathematics (G100, G103, G141)
- Mathematics Majors: Mathematics with Business Management (G1N2); Mathematics with Engineering (J920); Mathematics with Philosophy(G1V5)
- Joint Honours Mathematics: Mathematics & Computer Science (GG14); Pure Mathematics & Computer Science (GGC4); Mathematics & Sport Science (GC17); Mathematics & Music (GW13); Mathematics & Philosophy (GV15)

### Postgraduate supervision

- Multivariate Sign and Rank Based Methods
- Multivariate Process Control
- Classification and Clustering Using Multivariate Data Depths

### Research

#### RESEARCH THEMES

- Multivariate Nonparametric Statistical Methods
- Robust Disparity Based Estimation
- Multivariate Risk Measures

- [Statistical Computing](#)

## RESEARCH ACTIVITY

Biman Chakraborty is currently working on several descriptive statistics tool for the multivariate data using nonparametric rank based and data-depth based methods. He is also working on some new proposals on multivariate control charts. His other interests and ongoing work includes multivariate risk measures and statistical computing.

## Other activities

- He is involved in providing statistical help to the respiratory physiology group in the Heartlands Hospital, Birmingham.
- He acts as reviewers to International statistical journals and grant agencies.
- He organises scientific sessions to many international conferences.

## Publications

B. Chakraborty, and P. Chaudhuri (2008) On An Optimization Problem in Robust Statistics. *Journal of Computational and Graphical Statistics*, 17, 683-702.

B. Chakraborty and P. Chaudhuri (2006) Computation of half-space depth using simulated annealing. *Data depth: Robust Multivariate Analysis, Computational Geometry and Applications*, DIMACS Series in Discrete Mathematics and Theoretical Computer Science, 72, 159-169 (eds. R. Liu, R. Serfling, D.L. Souvaine), American Mathematical Society.

B. Chakraborty and P. Chaudhuri (2003) On the use of genetic algorithm with elitism in robust and nonparametric multivariate analysis. *Austrian Journal of Statistics*, 32, 13-27.

B. Chakraborty (2003) On multivariate quantile regression. *Journal of Statistical Planning and Inference*, 110, 109-132.

B. Chakraborty (2001) On affine equivariate multivariate quantiles. *Annals of the Institute of Statistical Mathematics*, 53, 380-403.

B. Chakraborty (1999) On multivariate median regression. *Bernoulli*, 5, 683-703.

B. Chakraborty, P. Chaudhuri and H. Oja (1998) Operating transformation re-transformation on spatial median and angle test. *Statistica Sinica*, 8, 767-784.

B. Chakraborty and P. Chaudhuri (1998) On an adaptive transformation re-transformation estimate of multivariate location. *Journal of the Royal Statistical Society, Series B*, 60, 145-157. B. Chakraborty and P. Chaudhuri (1996) On a transformation and re-transformation technique for constructing affine equivariant multivariate median. *Proceedings of the American Mathematical Society*, 124, 2539-2547.

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