

Rajarshi Mukherjee

Curriculum Vitae

*Division of Biostatistics
University of California, Berkeley
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Employment

- 2017- **Assistant Professor**, *Biostatistics*, University of California, Berkeley.
- 2014-2017 **Stein Fellow**, *Department of Statistics*, Stanford University.

Education

- 2009-2014 **PhD.**, *Department of Biostatistics*, Harvard University.
-Advisor- Dr. Xihong Lin
- 2007–2009 **M.Stat**, *Indian Statistical Institute, Kolkata, India.*
- Mathematical Statistics and Probability Specialization
- 2004–2007 **B.Stat (Hons)**, *Indian Statistical Institute, Kolkata, India.*

Preprints and Publications

- 2015 **Hypothesis Testing for High-Dimensional Sparse Binary Regression** .
- with Natesh Pillai and Xihong Lin, *The Annals of Statistics*, 43(1): 352-381, (Journal).
- 2016 **The Generalized Higher Criticism for Testing SNP-sets in Genetic Association Testing.**
- with Ian Barnett and Xihong Lin, *Journal of American Statistical Association, Applications and Case Studies*, (Journal).
- 2016 **Optimal Adaptive Inference in Random Design Binary Regression.**
- with Subhabrata Sen, to appear, *Bernoulli* (Arxiv).
- 2016 **Asymptotic Normality of Scrambled Geometric Net Quadrature.**
- with Kinjal Basu, to appear, *The Annals of Statistics* (Arxiv).
- 2016 **Minimax Estimation of a Functional on a Structured High-Dimensional Model.**
- with James M. Robins, Lingling Li, Eric Tchetgen Tchetgen, and Aad van der Vaart, to appear, *The Annals of Statistics* (Arxiv).

- 2016 **Detection Thresholds for the β -Model on Sparse Graphs.**
- with Sumit Mukherjee and Subhabrata Sen, to appear, *The Annals of Statistics* (Arxiv).
- 2016 **On Estimation of L_r norms in Gaussian White Noise Models.**
- with Yanjun Han, Jiantao Jiao and Tsachy Weissman (Arxiv).
- 2016 **Global Testing against Sparse Alternatives under Ising Models.**
- with Sumit Mukherjee and Ming Yuan, to appear, *The Annals of Statistics* (Arxiv).
- 2017 **Testing Degree Corrections in Stochastic Block Models.**
- with Subhabrata Sen (Arxiv).
- 2017 **Semiparametric Efficient Empirical Higher Order Influence Function Estimators.**
- with Whitney K. Newey and James M. Robins (Arxiv).
- 2016 **On Adaptive Estimation of Nonparametric Functionals.**
- with James M. Robins and Eric Tchetgen Tchetgen, (Arxiv).
- 2015 **Lepski's Method and Adaptive Estimation of Nonlinear Integral Functionals of Density.**
- with James M. Robins and Eric Tchetgen Tchetgen, (Arxiv).
- 2015 **Hypothesis Testing Using Penalized Likelihoods for High-Dimensional Data.**
- with Xihong Lin and Raymond Carroll, *Manuscript*.

In Preparation

- On the Effect of Dependence in Global Testing against Sparse Alternatives: Segment Sparsity, with Sumit Mukherjee and Ming Yuan.
- Minimax rates of Testing in Gaussian Sequence Models, with Sumit Mukherjee and Subhabrata Sen

Teaching Experience

Stanford University

- 2016 **Stats 314B**, *Topics in Minimax Inference of Nonparametric Functionals*, (Course Instructor).
- 2014-2016 **Stats 141/ Bio 141**, *Biostatistics*, (Course Instructor).
- 2015 **Stats 60/ Psych 10**, *Introduction to Statistical Methods, Precalculus*, (Course Instructor).

Harvard University

- 2011,2012 **Introductory Probability**, (*Course Instructor*).
- 2013 **Operational Mathematics**, (*Course Instructor*).
- 2011,2012 **Bio 251**, *Inference II*, (Teaching Assistant).

2013,2014 **Bio 250**, *Probability Theory and Applications II*, (Teaching Assistant).

Invited Talks

- 2017 **Asilomar Conference on Signals, Systems, and Computers**, *Asilomar*.
 2017 **Statistical Foundations Workshop 2017**, *Cambridge University, UK*.
 2016 **Meeting in Mathematical Statistics 2016**, *Frejus*.
 2016 **ICSA Conference 2016**, *Shanghai*.
 2016 **IISA Conference 2016**, *Corvallis*.
 2016 **IBC Conference 2016**, *Victoria*.
 2016 **Big Data Seminar**, *Harvard University*.
 2016 **IISA Conference 2015**, *Pune*.
 2014 **Statistics Seminar**, *Stanford University*.

Awards and Honours

- 2014 **IMS Travel Award**.
 2006-2009 **Award for Outstanding Performance in 4 Semesters at Indian Statistical Institute**.

Journal Reviewing

Annals of Statistics, Journal of American Statistical Association, Electronic Journal of Statistics, Journal of Applied Statistics, Mathematical Reviews/MathSciNet.

Computer skills

Software Packages	Matlab, R, Mathematica	Programming Languages	C
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References

Dr. Xihong Lin
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 Professor, Department of Biostatistics
 Harvard University
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Dr. Ming Yuan
 Professor, Department of Statistics
 Columbia University
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Dr. Iain Johnstone
 Professor, Department of Statistics
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