

Anirban Bhattacharya

CONTACT INFORMATION	Department of Statistical Science Duke University 114 Old Chemistry Building Box 90251, Durham, NC 27708 USA	<i>Voice:</i> (919) 684-8821 <i>Fax:</i> (919) 684-8594 <i>E-mail:</i> ab179@stat.duke.edu <i>web:</i> www.stat.duke.edu/~ab179
CITIZENSHIP	Indian	
RESEARCH INTERESTS	contingency tables, factor models, functional data, Gaussian process, machine learning, nonparametric Bayes, posterior consistency & convergence rates	
EDUCATION	Duke University , Durham, North Carolina, USA Ph.D., Department of Statistical Science (expected graduation date: May 2012) <ul style="list-style-type: none">• Thesis Topic: Semiparametric Bayes latent factor models• Advisor: Professor David B. Dunson M.S., Statistics (2010) Indian Statistical Institute , Kolkata, West Bengal, India Master of Statistics, June 2008 <ul style="list-style-type: none">• First Division with Distinction• Specialization: Mathematical Statistics and Probability Bachelor of Statistics, June 2006 <ul style="list-style-type: none">• First Division with Distinction	
AWARDS	<ul style="list-style-type: none">• Mahalanobis International Symposium on Statistics Award (2008), Indian Statistical Institute, Kolkata• Travel award: from NIH, International Society for Bayesian Analysis (ISBA), 2010• Travel award: from NSF, 8th Workshop on Bayesian Nonparametrics (BNP), 2011• Student paper award: Section of Bayesian Statistical Science (SBSS), 2011	
RESEARCH EXPERIENCE	Duke University , Durham, NC USA <ul style="list-style-type: none">• June 2009 - Present: Research Assistant to Prof. David Dunson, Duke University	
TEACHING EXPERIENCE	Duke University , Durham, NC USA August 2008 - May 2009: Teaching Assistant, Department of Statistical Science, Duke University <ul style="list-style-type: none">• STA 140 - Statistical Decision Analysis; Instructor: Prof. Scott Schmidler; Fall 2008• STA 114 - Statistics; Instructor: Prof. Robert Wolpert; Spring 2009	

January 2010 - May 2010: Teaching Assistant, Department of Statistical Science, Duke University

- STA 345 - Multivariate Statistical Analysis; Instructor: Prof. Robert Wolpert; Spring 2010

LIST OF
PUBLICATIONS

- **Bhattacharya, A.** and Dunson, D.B. (2011). Simplex factor models for multivariate unordered categorical data, *Journal of the American Statistical Association*, to appear.
- **Bhattacharya, A.** and Dunson, D.B. (2011). Sparse Bayesian infinite factor models. *Biometrika* **98(2)**: 291-306.
- Dzirasa, K., Mcgrarity, D., **Bhattacharya, A.** et al. (2011). Impaired limbic gamma oscillatory synchrony during anxiety related behavior in a genetic mouse model of bipolar mania, *Journal of NeuroScience* **31(17)**: 6449-6456.

SUBMITTED
MANUSCRIPTS

- **Bhattacharya, A.**, Pati, D. and Dunson, D.B. (2011). Adaptive dimension reduction with a Gaussian process prior. arXiv:1111.1044v1
- Pati, D., **Bhattacharya, A.** and Dunson, D.B. (2011). Posterior convergence rates in non-linear latent variable models. arXiv:1109.5000v1
- Pati, D., **Bhattacharya, A.** and Sarkar, A. Nonparametric inequality measure based on ranks. *Calcutta Statistical Association Bulletin*, Under revision.

WORK IN
PROGRESS

- Bayesian testing of associations with multivariate unordered categorical data, with Dunson, D.B.
- Gaussian process latent variable density regression models, with Pati, D. and Dunson, D.B.
- Sparse bayesian nonlinear factor analysis via Gaussian process embeddings, with Dunson, D.B.

CONTRIBUTED
TALKS & POSTERS

- Simplex factor models for multivariate unordered categorical data, Joint Statistical Meetings, Miami Beach, Florida (August, 2011)
- Variable selection with Bayesian factor models, *poster presentation*, Semiparametric Bayesian Inference in PKPD Analysis, SAMSI (July 2010)
- Sparse Bayesian infinite factor models, *contributed talk*, International Society for Bayesian Analysis (ISBA) World Meetings, Benidorm, Spain (June 2010)
- Sparse Bayesian infinite factor models, *contributed talk*, ENAR International Biometric Society Spring Meeting in New Orleans, LA (March 2010)
- Bayesian local mixtures of factor analyzers, *poster presentation*, 7th workshop on Bayesian nonparametrics, Moncalieri, Italy (June 2009)
- Nonparametric measures of Inequality, *contributed talk*, International Conference on Multivariate Statistical Methods- In the legacy of Prof. S.N. Roy. Kolkata, India (December 2007)

INVITED TALKS

- Simplex factor models for multivariate unordered categorical data, 8th Workshop on Bayesian Nonparametrics, Veracruz, Mexico (June, 2011)
- Simplex factor models for multivariate unordered categorical data, IISA conference on Probability, Statistics and Data analysis, NCSU (April 2011)
- Simplex factor models for multivariate unordered categorical data, ERCIM, London (December 2010)

TECHNICAL SKILLS

- Statistical Packages: MATLAB, R
- Applications: LATEX, Microsoft Office

MEMBERSHIPS

- International Society for Bayesian Analysis (ISBA), May 2009 - present
- American Statistical Association (ASA), January 2010 - present
- Eastern North American Region (ENAR), November 2009 - present
- Institute of Mathematical Statistics (IMS), 2010 - present

REFERENCES

David B. Dunson
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