

Robin Mitra

CONTACT INFORMATION	Department of Statistical Science Duke University 114 Old Chemistry Building Duke University Durham, NC 27708 USA	<i>Tel:</i> (919) 684-8821 <i>Fax:</i> (919) 684-8594 <i>E-mail:</i> rm51@stat.duke.edu
EDUCATION	Duke University , Durham NC <ul style="list-style-type: none">• Ph.D in Statistics (expected August 2008)• M.S. in Statistics (2006) University of Warwick , Coventry UK <ul style="list-style-type: none">• BSc (First Class with Honours) in Mathematics, Operations Research, Statistics and Economics (2004)	
THESIS	“Bayesian methods to impute missing covariates for Causal Inference and Model Selection”	
ADVISOR	Professor Jerry Reiter	
AWARDS	J. B. Duke Fellowship (2004 - 2008) IBM Student Achievement Award (2003) Senior Maths Challenge Gold Award (2000)	
EXPERIENCE	Research Assistant , Duke University (Fall 2004 - Summer 2007 & Spring 2008) <ul style="list-style-type: none">• Investigated disclosure risks in partially synthetic data• Evaluated methods to adjust survey weights when synthesizing key identifying information in order to preserve inferences and limit disclosure• Used generalized additive models to synthesize variables in the Survey of Income and Program Participation• Considered propensity score predictive pattern matching as a technique to synthesize longitudinal variables in the Survey of Income and Program Participation Teaching Assistant , Duke University (Fall 2007) <ul style="list-style-type: none">• Covered lectures, held office hours, led lab sessions Statistical Consultant , Duke University (Fall 2006) <ul style="list-style-type: none">• Provided assistance in statistical analysis to researchers from other fields. Project worked on include:<ul style="list-style-type: none">– Analyzing stock price data of Biotechnology companies– Modeling mating patterns of female macaques in a colony– Inferring about the proportion of US businesses owned by first generation legal immigrants in a survey sample subject to a high degree of non-response	

Graduate Consultative Committee, Duke University (2004 - 2005)

- Relayed graduate student concerns to the faculty

Intern at Hewitt Bacon & Woodrow, St. Albans, UK (Summer 2003)

- Learned about actuarial practices

Student Staff Liaison Committee, University of Warwick (2001 - 2004)

- Evaluated undergraduate statistics courses and discussed any issues arising with faculty members

RESEARCH
INTERESTS

Bayesian statistics, Data confidentiality, Missing data methods, Analysis of complex surveys

PUBLICATIONS

Mitra R and Reiter JP. "Latent class mixture models to impute missing covariates in observational studies." (In progress)

Mitra R. and Dunson DB. "Two Level Stochastic Search Variable Selection in GLMs with Missing Predictors." (In progress)

Reiter JP and Mitra R. "Estimating risks of identification disclosure in partially synthetic data." *Journal of Privacy and Confidentiality* (Accepted 2007)

Mitra R and Reiter JP. "Adjusting survey weights when altering identifying design variables via synthetic data." *Privacy in Statistical Databases*. Ed. J Domingo Ferrer and L Franconi, Lecture Notes in Computer Science, Springer 2006: 177-188

PRESENTATIONS

Mitra R. "Estimating propensity scores for causal inference when multiply imputing missing covariates." Session on Bayesian Analysis in Clinical Trials, Joint Statistical Meetings, Salt Lake City, July 2007

Mitra R and Reiter JP. "Adjusting survey weights when altering identifying design variables via synthetic data." Privacy in Statistical Databases, CENEX conference, Rome, December 2006

Mitra R. "Survey Weights in Partially synthetic data." Statistical and Applied Mathematical Sciences Institute (SAMSI), Data Confidentiality Working Group, June 2006

GRADUATE
COURSES

2007 - Bayesian Experimental Design

2006 - Spatial Statistics, Statistical Consulting, Bayesian model selection with missing covariates

2005 - Monte Carlo methods in Finance, Generalized Linear Models, Theory of Multiple Imputation, Applied Bayesian Nonparametric modeling, Readings in Statistical Science

2004 - Statistical Inference, Statistical Laboratory, Probability/Statistical Models, Basic Analysis, Linear Models, Measure Theory

STATISTICAL
ORGANIZATIONS

Member of American Statistical Association

Member of Institute of Mathematical Statistics

Member of International Society for Bayesian Analysis

COMPUTING
SKILLS

R/Splus, SAS, JMP, Microsoft Excel and Word