

CURRICULUM VITAE

Dhiman Bhadra

CONTACT INFORMATION

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EDUCATION

Ph.D. in Statistics, August, 2010.

Department of Statistics, University of Florida, Gainesville, Florida, USA.

Advisor : Prof. Malay Ghosh, Co-advisor : Prof. Michael J. Daniels.

Dissertation Title : Bayesian Semiparametric Regression and Related Applications.

Master in Statistics, September, 2004.

Department of Statistics, University of Calcutta.

Bachelor (with Honours in Statistics), September, 2002.

Department of Statistics, Presidency College, Calcutta.

EXPERIENCE

June 2012 - present

Assistant Professor, Production & Quantitative Methods Area,
Indian Institute of Management Ahmedabad.

Aug 2010 - May 2012

Assistant Professor of Statistics, Department of Mathematical Sciences,
Worcester Polytechnic Institute, Massachusetts, USA.

Jan 2005 - Aug 2010

Graduate Assistant, Department of Statistics, University of Florida, USA.

RESEARCH INTERESTS

Bayesian semiparametrics, Case-control studies, Small area estimation, Biostatistics, Longitudinal and Spatial data analysis.

PUBLICATIONS & WORKING PAPERS

1. Dholakia, H. H., **Bhadra, D.** and Garg, A. (2014), "Air pollution in Indian cities: short term mortality impacts and interactions with temperature", *IIMA Working Paper* (submitted to *Atmospheric Environment*).
2. Nandram, B., Bhatta, D., Sedransk, J. and **Bhadra, D.** (2013), "A Bayesian Test of Independence in a Two-way Contingency Table using Surrogate Sampling", *Journal of Statistical Planning and Inference*, 143, 1392-1408.
3. Nandram, B., Bhatta, D. and **Bhadra, D.** (2013), "A Likelihood Ratio Test of Quasi-independence for Sparse Two-Way Contingency Tables", *Journal of Statistical Computation and Simulation*, DOI : 10.1080/00949655.2013.815190.
4. Nandram, B., Bhatta, D., **Bhadra, D.** and Shen, G. (2013), "Bayesian Predictive Inference of a Finite Population Proportion Under Selection Bias", *Statistical Methodology*, 11, 1-21.
5. **Bhadra, D.**, Ghosh, M. and Kim, D. (2013), "Estimation of Median Household Income for Small Areas : A Bayesian Semiparametric Approach", *Calcutta Statistical Association Bulletin*, 64, 115-142.
6. **Bhadra, D.**, Daniels, M. J., Ghosh, M. and Mukherjee, B. (2012), "A Bayesian Semiparametric Approach for Incorporating Longitudinal Information on Exposure History for Inference in Case-control Studies", *Biometrics*, 68, 361-170.*
*Winner of the 2010 ASA - Health Policy and Statistics Section (HPSS) and the Section on Bayesian Statistical Science (SBSS) student paper awards.
7. Lee, H., Schuur, E. A. D., Vogel, J. G., Lavoie, M., **Bhadra, D.** and Staudhammer, C. L. (2011), "A Spatially Explicit Analysis to Model Carbon Fluxes in Upland Tundra where Permafrost is Thawing", *Global Change Biology*, 17(3), 1379-1393.

WORK IN PROGRESS

1. A Bayesian analysis of treatment pattern differences for black and white breast cancer patients in community hospitals in US, with *Balgobin Nandram, Yiwei Liu and Adam Tragellis*.
2. A sensitivity analysis of a non-ignorable non-response model via EM algorithm and bootstrap, with *Balgobin Nandram and Yujie Zong*.

INVITED PRESENTATIONS

1. A Brief Introduction to Splines, IIMA Doctoral Colloquium, Dec 2013.
2. *Same as above*, IIMA Summer School, May 2013.

3. *Same as above*, Department of Mathematics, IIT Bombay, Jan, 2012.
4. *Same as above*, IIM Ahmedabad, Jan 2012.
5. A Bayesian Semiparametric Approach for Incorporating Longitudinal Information on Exposure History for Inference in Case-control Studies, Eighth Triennial Calcutta Symposium on Probability and Statistics, Department of Statistics, University of Calcutta, India, Dec, 2012.
6. Bayesian Semiparametric Analysis of Case-control Studies with Time Varying Exposures, Department of Biostatistics and Epidemiology, University of Oklahoma Health Sciences Center, April 2010.
7. *Same as above*, Department of Mathematical Sciences, University of Cincinnati, Feb 2010.
8. *Same as above*, Department of Mathematics and Statistics, University of Missouri-Rolla, Feb 2010.
9. *Same as above*, Department of Mathematical Sciences, Worcester Polytechnic Institute, Feb 2010.
10. A Brief Introduction to Splines, Department of Mathematical Sciences, Worcester Polytechnic Institute, Feb 2010.
11. Estimation of Median Household Income of Small Areas : A Bayesian Semiparametric Approach, SIAM, Department of Mathematics, University of Florida, Oct 2009.
12. Smoothing, Penalized Splines and Mixed Models, Society of Industrial and Applied Mathematics (SIAM), Department of Mathematics, University of Florida, Feb 2009.

CONTRIBUTED PRESENTATIONS

1. A Bayesian Semiparametric Approach for Incorporating Longitudinal Information on Exposure History for Inference in Case-control Studies, Eastern North American Regional (ENAR) Conference, Washington D.C, April, 2012.
2. *Same as above*, Contemporary Issues in Applied Statistics (CIAS), Indian Statistical Institute, Kolkata, India, Jan 2012.
3. Bayesian Semiparametric Analysis of Nested Case-control Studies with Time Varying Exposures, New England Statistics Symposium (NESS), University of Connecticut, April, 2011.
4. *Same as above*, Joint Statistical Meetings (JSM), Vancouver, B.C, Canada, August 2010.
5. Bayesian Semiparametric Analysis of Case-control Studies with Time Varying Exposures, Department of Statistics, University of Florida, March 2010.

6. Bayesian Semiparametric Analysis of Case-control Studies with Longitudinally Varying Exposures, Department of Statistics, University of Florida, Oct 2009.
7. Estimation of Median Income of Small Areas : A Bayesian Semiparametric Approach, Joint Statistical Meetings (JSM), Washington D.C, August 2009.
8. A Brief Review of Penalized Splines and its Applications, Department of Statistics, University of Florida, Oct 2008.

TEACHING EXPERIENCE

IIM Ahmedabad

PGP

- Probability & Statistics III (PS III), Slot III, 2012, 2013.
- Probability & Statistics II (PS II), Slot II, 2012, 2013.

FPM

- Bayesian Analysis for Business Research, Term VI, 2014 (with Prof. Tathagata Bandyopadhyay)

MDPs & Miscellaneous

- Session on Regression & Multilevel Regression, Summer School 2013.
- Sessions on Probability for Risk Analysis in “Risk: Modeling and Management”, 2012, 2013.
- Sessions on Probability Models for Analytics in “Advanced Analytics for Management”, 2012, 2013.
- Session on Bayesian Analysis in “Advanced Analytics for Management”, 2012.

Worcester Polytechnic Institute (WPI)

- Applied Regression Analysis (Graduate course), Fall 2010 and Spring 2012.
- Applied Statistics II, Spring D, 2012.
- Applied Statistics I, Spring C & D, 2011.
- Applied Statistics I, Fall A & B, 2011.

University of Florida

- Introduction to the Practice of Statistics II (STA 3024) : Spring 2008 and Fall 2009.

CONSULTING EXPERIENCE

Clinton Foundation/Clinton Access Health Initiative : Jan 2010 to April 2013.

- Factors Affecting Treatment and Drug Seeking Behaviors of Febrile Children in Zanzibar

Covidien Inc : March 2011 to May 2012

- Economic Impact of Anastomotic Leaks and Identification of Relevant Risk Factors for Gastrointestinal Procedures in the United States.

MassInsight Education : Jan 2011 to March 2011

- Analyzed Advanced Placement (AP) Exam data comparing the Massachusetts results to the schools participating in the MMSI (Massachusetts Math and Science Initiative) program in terms of access and achievement. *Results reported in Worcester Telegram & Gazette, Feb 10 2011.*

University of Florida :

Department of Botany : Aug 2008 to Dec 2008

- Explicit Analysis to Model Carbon Fluxes in Upland Tundra where Permafrost is Thawing. (published in *Global Change Biology* (2011), 17(3), 1379-1393).

Department of Architecture : Oct 2008 to Dec 2008

- Statistical Analysis of Rater Agreement and Other Association Patterns Concerning the Evaluation of Architectural Portfolios.

PROFESSIONAL SERVICES & ADVISING

IIM Ahmedabad :

- Member of PGP interview panels in Bangalore, New Delhi and Kolkata, March 2014.
- Chaired sessions at ICADABAI and Doctoral Colloquium held at IIM Ahmedabad in 2013.
- Advised project titled *Estimation of Median Household Income for Small Areas* in PGP II, Term 4, Aug 2013.
- Served as discussant at the Pan-IIM World Management Conference, Goa, May 2013.
- Member and Dean's nominee in the FPM and AA interview panels, IIMA, March 2013.
- Review articles for *Vikalpa, Journal of Statistical Planning and Inference, Communications in Statistics : Theory and Methods, Statistical Methodology, Sankhya series B, Calcutta Statistical Association Bulletin* etc.

Worcester Polytechnic Institute (WPI)

- Advised independent study on *Longitudinal Data Analysis* to Jiani Yin, Spring 2012.
- Member, Undergraduate Admissions Committee, Department of Mathematical Sciences, 2011-2012.
- Member, Colloquium Committee, Department of Mathematical Sciences, 2010-2011.
- Member of Masters dissertation committees of Jingran Zhou and Yujie Zong.
- Advisor of independent study of Budhinath Padhy, Spring 2011.

PROFESSIONAL MEMBERSHIPS

- American Statistical Association (ASA).
- Institute of Mathematical Statistics (IMS).
- Center for Industrial Mathematics and Statistics (CIMS).

CONFERENCES ATTENDED

- 1st Pan-IIM World Management Conference, Goa, May, 2013.
- 3rd IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence (ICADABI), April, 2013.
- 3rd & 8th International Triennial Calcutta Symposium on Probability and Statistics, Calcutta University, India, December, 2003 and 2012.
- Eastern North American Regional (ENAR) Conference, Washington D.C, April, 2012.
- New England Statistics Symposium (NESS), University of Connecticut, April, 2011.
- Joint Statistical Meetings (JSM), Washington D.C and Vancouver, B.C, Canada, August, 2009, 2010.
- Annual Winter Workshops, University of Florida, January, 2005 - 2010.
- Challis Lectures, University of Florida, January, 2005 - 2009.
- Joint UF-FSU Colloquiums, University of Florida and Florida State University, 2005 - 2009.

HONORS AND AWARDS

- High Quality Research Award, IIM Ahmedabad, 2013.
- Section on Bayesian Statistical Science (SBSS) Student Paper Award, American Statistical Association (ASA), 2010.
- Health Policy and Statistics Section (HPSS) Student Paper Award, ASA, 2010.
- R. C Bose Memorial Book Award, Department of Statistics, University of Calcutta, 2003.

COMPUTING SKILLS

R, WinBUGS, SAS, SPSS, Minitab, \LaTeX , Microsoft Office.

REFERENCES

Malay Ghosh

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Department of Statistics,
University of Florida,
Gainesville, FL 32611-8545.
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