

Sanjib Basu, PhD

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Department of Preventive Medicine
Visiting Research Scientist
Professor



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Qualifications

B. Stat Honors, Indian Statistical Institute, Statistics, 1985
M. Stat, Indian Statistical Institute, Statistics, 1987
PhD, Purdue University, Statistics, 1991

Expertise and Interests

Applications of statistics in Biomedicine and Bioinformatics, Methodological development in Bayesian statistics, Survival analysis, Competing risks, Analysis of data from cancer studies and SEER, Meta analysis, Analysis of data from epidemiological studies, Missing data, Analysis of Longitudinal data

Ongoing Research

Competing risks and cure fraction models for survival data from SEER, Joinpoint models for analyzing and predicting cancer rates, Nonparametric Bayesian models, Joint modeling of longitudinal and missing data, missing data in cross-over trial

Current Funding

National Science Foundation award DMS-0306416, Bayesian analysis of competing risks

Publications

Buckingham, L.E., Coon, J.S., Morrison. L., Jacobson, K., Jewell, S., Kaiser, K., MauerA., Muzzafar, T., Polowy C., Basu, S., Gale, M., Villaflor, V. and Bonomi, P. (2007), The Predictive Value of Chromosome 7 Polysomy in Non-Small Cell Lung Cancer Patients Treated with Gefitinib, *Journal of Thoracic Oncology*, 2, 414-422.

Basu, S. (2007), Competing risks and analysis of masked data in reliability applications, to appear in *Encyclopedia of Statistics in Quality and Reliability*, John Wiley and Sons.

Rucker-Whitaker C., Basu, S., Kravitz G., Bushnell, M., Mendes de Leon, C. (2006), A pilot study of self-management in African-Americans with common chronic conditions, To appear in *Ethnicity & Disease*

Zillich. A.J., Garg, J., Basu, S., Bakris, G.L., and Carter, B.L. (2006), Thiazide Diuretics, Potassium, and the Development of Diabetes-A Quantitative Review, *Hypertension*, 48, 219-224

Mukhopadhyay, C. and Basu, S. (2006), Bayesian Analysis of Masked Series System Lifetime Data, To appear in *Communications in Statistics, Theory and Methods*.

Basu, S. and Chib, S. (2003), Marginal likelihood and Bayes factor for Dirichlet Process Mixture models. *Journal of American Statistical Association*, 98, 224-235.

Basu, S., Sen, A. and Banerjee, M. (2003), Bayesian Analysis of Competing Risks with Partially Masked Cause-of-failure. *Journal of Royal Statistical Society, Ser. C (Applied Statistics)*, 52, 77-93

.Basu, S. and Ebrahimi, N. (2003), Bayesian software reliability models based on martingale processes, *Technometrics*, 45, (2003): 150-158.

Basu, S. and Lingham, R. (2003), Bayesian estimation of system reliability in Brownian stress-strength model, *Ann. of Inst. of Stat. Math.*, 55, 7-19.

.Weiss, R. E., Basu, S., and Marshall, C. R. (2002), A Framework for Analyzing Fossil Record Data, in *Tools for Constructing Chronologies: Crossing Disciplinary Boundaries*, Buck, CE and Millard, AR eds., Springer-Verlag, London, to Appear.

Memberships

1991 - Present Member, American Statistical Association

1991 – Present Member, The Institute of Mathematical Statistics

1997 – Present Member, International Society of Bayesian Analysis

Honors and Awards

2001 – 2002 Stanley Schor Scholar, Biostatistics, Merck Research Laboratories

Previous Positions

1991 – 1993 Visiting Assistant Professor, Department of Statistics and Applied Probability, University of California, Santa Barbara

1993 – 1996 Assistant Professor, Department of Mathematical Sciences, University of Arkansas, Fayetteville

1996 – Present Faculty, Division of Statistics, Northern Illinois University, DeKalb