Santu Ghosh

Contact Information	1120 15th Street, AE-1032 Augusta University, Augusta, GA 30912	*Phone:* (706) 721-4454 *E-mail:* sghosh@augusta.edu

Education

- PhD, Mathematical Sciences with concentration in Statistics, 2008-2013, Northern Illinois University, DeKalb, IL, USA.
- M.S. Statistics, 2007-2008, University of New Orleans, USA.
- M.Sc., Statistics, 2004 - 2006, Indian Institute of Technology, Kanpur, India.
- B.Sc., Statistics, 2001 - 2004, Visva Bharati University, Santiniketan, India.

Employment History

- **Assistant Professor**, Department of Biostatistics and Epidemiology, Augusta University (Formerly known as Georgia Regents University), 05/18/2015- Present.
- **Postdoc Fellow**, Center for Molecular Medicine and Genetics, School of Medicine, Wayne State University, 08/19/2013 -05/12/2015.

Research Interests

- Resampling Methods, Application of Bayesian Statistics, Gene expression data analysis, Methylation data analysis, Clinical trials, Ranked Set Sampling.

Articles Published/ Accepted

1. **Ghosh, Santu**, Chatterjee Arpita and Balakrishnan, N. (2017+): Nonparametric Confidence Intervals for Ranked Set Samples, **Computational Statistics** In Press , DOI: 10.1007/s00180-017-0744-0 .
2. Sawyer, Alexandra, Wise, Linda, **Ghosh, Santu**, Bhatia, Jatinder, and Stansfield, Brian (2017+): Comparison of Transfusion Thresholds during Neonatal ECMO, **Transfusion**, DOI: 10.1111/trf.14151
3. **Ghosh, Santu**, Chatterjee, Arpita, and Ghosh, Samiran (2017): Non-inferiority test based on transformations for non-normal distributions, **Computational Statistics and Data Analysis**, 113, 73–87
4. **Ghosh, Santu** and Polansky, Alan (2016): New Bootstrap Confidence Intervals for Means of Positively Skewed Distributions, **Communication in Statistics-Theory and Methods**, 45, 6915–6927.
5. Ghosh, Samiran, **Ghosh Santu**, and Tiwari, Ram (2016) : Bayesian Approach for Assessing Non-inferiority in a Three-Arm Trial With Pre-Specified Margin, **Statistics in Medicine**, 35, 695–708.
6. Polansky, Alan and **Ghosh, Santu** (2016): Using Observed Confidence Level to Perform Principal Component Analyses, **Communication in Statistics-Theory and Methods**, 45, 3596–3611.
7. **Ghosh, Santu** and Polansky, Alan (2014): Smoothed and Iterated Bootstrap Confidence Regions for Parameter vectors, **Journal of Multivariate Statistics**, 142, 171–182.

Articles Submitted/Under Revision

- **Ghosh, Santu**, Tiwari, Ram, and Samiran Ghosh: Bayesian approach for assessing non-inferiority in a three-arm trial with Binary endpoint (Revision Submitted).
- Hongyan, Xu, Fengjiao, Hu, , **Ghosh,Santu** , Mathur, Sunil , George, Varghese : Detecting differentially methylated genes associated with drug response (Under Revision).

Articles Under Preparation

- Maity, Arnab, Basu, Sanjib, and **Ghosh, Santu**: Bayesian Variable Selection by DIC, Cross Validation, and Marginal Likelihood: A Comparative Study.
- **Ghosh, Santu**: A Novel Multiple Hypothesis Testing procedure Using Smoothed Bootstrap Method in Application to gene Expression Data.

Grant Submission

- Novel determinants of chemotherapy response in bladder cancer, PI: Dr. Vinata Lokeshwar , role: Co-I, 2017.
- Community Approach for Cooking Healthy: CoACH to Prevent Breast Cancer, PI: Dr. Selina A. Smith, role: Co-I, 2017.
- Efficacy-to-Effectiveness Transition of an Educational Program to Increase CRC Screening PI: Dr. Selina A. Smith, role: Co-I, 2017.
- Assessing Self-Management Effectiveness and Healthcare Use Among Pediatric Asthma Patients and Families, PI: Dr. Pavani Rangachari, role: Co-I, 2016.

Supervisory Roles

- Fengjiao Hu, PhD Dissertation Committee Member.
- Jaeeun Lee, PhD Dissertation Committee Member.
- Jeannie Daniel, PhD Dissertation Committee Member .
- Carly Bryan, MS Thesis Committee Member.

Awards

- UGC Visiting Fellow, Shivaji University, Kolhapur, India, 2016.
- Certificate of Merit (Superior academic achievement), Department of Mathematical Sciences, Northern Illinois University, 2013.
- Mathematical Association Membership Award in recognition of an outstanding scholar, Department of Mathematics, University of New Orleans, 2008.

Teaching Experience at the Graduate Level

- Instructor, STAT 8890: Readings and Research, Summer 2017.
- Instructor, STAT 8520: Statistical Theory I, Augusta University, Fall 2015, Fall 2016.
- Instructor, STAT 8620: Statistical Theory II, Augusta University, Spring 2016, Spring 2017.
- Guest Lecturer: Resampling Method, Northern Illinois University.
- Graduate Assistant for graduate level statistics courses, STAT 672: Theory of Statistics, STAT 578: Statistical Methods of Forecasting, and STAT 583: Stochastic Processes, Northern Illinois University.

Teaching Experience at the Under Graduate Level

- Recitation instructor, STAT 208: Basic Statistics, Northern Illinois University, Spring 2009, Summer 2010, Fall 2010, Spring 2011.
- Teaching Assistant for undergraduate mathematics and statistics courses, University of New Orleans.
- Graduate Assistant for graduate level statistics courses, STAT 672: Theory of Statistics, STAT 578: Statistical Methods of Forecasting, and STAT 583: Stochastic Processes, Northern Illinois University.

Professional Presentations

- A Non-Inferiority Test Based on Balanced Simultaneous Confidence Sets, JSM, Baltimore (2017).
- Identifying differentially methylated genes associated with drug response with a novel scan statistic, GAW20, San Diego (2016).
- Identifying Non-Normally Distributed Differentially Expressed Genes, ICSTC, University of Kerala, India (2016).
- Smoothed Bootstrap Confidence Regions, Shivaji University, India (2016).
- Iterated Bootstrap Confidence Regions, Visva Bharati University, India (2016).
- Three-Arm Non-Inferiority Test based on a Monotone Transformation, ENAR, (2016).
- Three-Arm Non-Inferiority Test based on a Monotone Transformation, Department of Biostatistics & Epidemiology, Georgia Regents University, (2014).
- Application of Bootstrap Methodology in Clinical Statistics, at AbbVie, Abbott Park, IL, February, (2013).
- Smoothed Bootstrap Percentile Ellipsoidal Confidence Region for a Mean Vector,Joint Statistical Meetings, (2012).

Industry Experience

- **Intern Clinical Statistician**, Abbott Laboratories, Fall 2012 - Spring 2013, funded by a grant awarded to Division of Statistics by Abbott Laboratories exclusively to fund this position.
    - ◇ Responsibilities: Collaborate with statisticians and clinicians at Abbott Laboratories towards developing statistical analysis plans and implementing statistical analysis for biopharmaceutical research.

Administrative Position

- July 2015-July 2016: Chair of the Department Exam Committee, Department of Biostatistics and Epidemiology, Augusta University.
- July 2016-Present: Member of Graduate Program Committee, Department of Biostatistics and Epidemiology, Augusta University.

Professional Services

- Associate Editor (2015- Present): The Journal of Electroconvulsive Therapy.
- Reviewer: Statistics in Medicine, Statistics and Probability Letters, Computational Statistics and Data Analysis, Journal of Applied Statistics, Communication in Statistics, Theory and Methods, Bioinformatics, BMC.

Membership

American Statistical Association, Eastern North American Region International Biometric Society.