7TH ANNUAL PROBABILITY AND STATISTICS DAY
AT UMBC
FUNDED BY NATIONAL SECURITY AGENCY

SATURDAY, APRIL 27, 2013
INFORMATION TECHNOLOGY/ENGINEERING (ITE) BUILDING

FINAL PROGRAM

8:00AM – 9:00AM REGISTRATION & BREAKFAST
LOBBY, OUTSIDE LECTURE HALLS 7 & 8 (ROOMS 104 & 102)

9:00AM – 9:30AM WELCOME
LECTURE HALL 7 (ROOM 104)

• William LaCourse, Dean, College of Natural & Mathematical Sciences, UMBC
• Nagaraj Neerchal, Chair, Department of Mathematics & Statistics, UMBC
• Bimal Sinha, Conference Chair, UMBC

9:30AM – 10:15AM KEYNOTE ADDRESS I
LECTURE HALL 7 (ROOM 104)

Introduction of Speaker: Kofi Adragni, UMBC
Speaker: Dennis Cook, University of Minnesota
Title: Envelope Models and Methods

10:15AM – 11:00AM KEYNOTE ADDRESS II
LECTURE HALL 7 (ROOM 104)

Introduction of Speaker: Anindya Roy, UMBC
Speaker: Karen Kafadar, Indiana University
Title: Statistical Issues in Evaluating Randomized Cancer Screening Trials: To Screen or Not to Screen?

11:00AM – 11:30AM COFFEE BREAK

11:00AM – 4:00PM POSTER SESSION
LOBBY, GROUND FLOOR, NEAR BUILDING ENTRANCE

Student Presenters
• Deepak Nag Ayyala, UMBC
  Statistical Validation of Reproducibility of Resting State Networks
• Elande Baro, UMBC
  Assessment of Drug Effects in Cancer Xenograft Models with Multiple Tumor Outcomes
Douglas Galagate, University of Maryland, College Park  
*Inferring the Effect of Interviewer Time on Data Quality from a Causal Inference Perspective*

Veroni Jayawardana, Clarkson University  
*Factors Associated with Function Among Individuals with Fibromyalgia Syndrome*

Sandy Lakkur, UMBC  
*Multiple Imputation Analysis of Cognitive Differences in Schizophrenia Subgroups Compared to Controls*

Jonathan McHenry, UMBC  
*Bovine Lameness Detection*

Esther Ngan, UMBC  
*Logistic Regression Analysis of Byssinosis Data with Penalized Likelihood Estimation*

Andrew Raim, UMBC  
*An Analysis of Categorical Injury Data using Mixtures of Multinomials*

Anna Sun, UMBC  
*Sample Size Determination for Bioequivalence Trials Adjusted for Multiple Comparisons*

Shuyan Zhai, UMBC  
*Comparing Drug Dissolution Profiles Based on Tolerance Intervals*

Coordinator (Non-Judge)  
*Yaakov Malinovsky, UMBC*

Judges  
*Salil Das, Prince George’s Community College*  
*Carolina Franco, U.S. Census Bureau*  
*Debashis Kushary, Rutgers University - Camden*  
*Marlow Lemons, Virginia Tech*  
*Rupa Mitra, Community College of Baltimore County*  
*Darcy Steeg Morris, U.S. Census Bureau*  
*Derek Young, U.S. Census Bureau*

11:30AM – 1:30PM  
**PARALLEL SESSIONS**

**SESSION A ◆ LECTURE HALL 7 (ROOM 104)**  
**ORAL PRESENTATIONS BY GRADUATE STUDENTS I**  
Chair: Rong Wei, National Center for Health Statistics

Student Presenters  
*Yu-Wei Chang, Temple University*  
*Sample Size Determination for a Three-Arm Equivalence Trial of Normally Distributed Responses*

*Moumita Karmakar, UMBC*  
*Variable Selection in Complex High Dimensional Data Based on Principal Fitted Components*

*Peter Linton, UMBC*  
*On a Comparison of Tests of Homogeneity of Binomial Proportions*

*Malick Mbojd, UMBC*  
*Approximate Tolerance Regions for Multivariate Normal Populations*
• **Joshua Sparks, George Washington University**  
  *Phases in the Two-Color Tenable Zero-Balanced Pólya Process*

• **Mingyu Xi, UMBC**  
  *Linear and Nonlinear Discriminant Analysis of Osteoarthritis Data Based on MRI Study of Cartilage*

**Coordinator (Non-Judge)**  
• DoHwan Park, UMBC

**Judges**  
• Indrani Basak, Penn State Altoona  
• Munni Begum, Ball State University  
• Shyamal De, Binghamton University  
• Bassirou Diatta, Jackson State University  
• Joyee Ghosh, University of Iowa  
• Nusrat Jahan, James Madison University  
• Nabendu Pal, University of Louisiana at Lafayette  
• Gitanjali Paul, GlaxoSmithKline

**SESSION B ◆ LECTURE HALL 8 (ROOM 102)**  
**ORAL PRESENTATIONS BY GRADUATE STUDENTS II**  
**Chair:** Jorge Morel, Procter & Gamble

**Student Presenters**  
• **Deepak Nag Ayyala, UMBC**  
  *Mean Vector Testing for Dependent Observations*

• **Sungwoo Choi, UMBC**  
  *Plug-in Tests for Non-equivalence of Means of Independent Normal Populations*

• **Mohammed Chowdhury, George Washington University**  
  *Nonparametric Estimation of Conditional Distribution Functions with Longitudinal Data and Time-varying Parametric Models*

• **Derek Damron, George Washington University**  
  *Methods of Cluster Re-indexing and Evaluation*

• **Jason Matterer, Johns Hopkins University**  
  *Quickselect Process Convergence with an Application to Distributional Convergence for the Number of Symbol Comparisons Used by Worst-case Find*

• **Amanda Peterson, UMBC**  
  *Two Sample Tests for High Dimensional Binary Data*

**Coordinator (Non-Judge)**  
• Yi “Yvonne” Huang, UMBC

**Judges**  
• Soutir Bandyopadhyay, Lehigh University  
• Michael Baron, University of Texas at Dallas  
• Prasanta Basak, Penn State Altoona  
• Dulal Bhaumik, University of Illinois at Chicago  
• Gauri Datta, University of Georgia  
• Leonid Kopylev, Environmental Protection Agency
• Justin Newcomer, Sandia National Laboratories
• Enayet Raheem, University of Wisconsin - Green Bay

1:30PM – 2:45PM  LUNCH BREAK & PHOTO SESSION

Photographer: Willy Weng, IBM

2:45PM – 3:30PM  KEYNOTE ADDRESS III
LECTURE HALL 7 (ROOM 104)

Introduction of Speaker: Nagaraj Neerchal, UMBC
Speaker: Nathaniel Schenker, National Center for Health Statistics
Title: Multiple Uses of (Mostly Multiple) Imputation at the National Center for Health Statistics

3:30PM – 5:30PM  SPECIAL INVITED SESSION: INTERNATIONAL PANEL
LECTURE HALL 7 (ROOM 104)
Chair: Barry Nussbaum, U.S. Environmental Protection Agency

Speakers
• Carlos A. Coelho, New University of Lisbon, Portugal
  The Likelihood Ratio Test for Block-Circularity of the Covariance Matrix—Developing Near-Exact Distributions for the Test Statistic
• Guido Knapp, Clausthal University of Technology, Germany
  Advanced Meta-Analysis Methods
• Bikas Sinha, Indian Statistical Institute [retired], India
  Statistical Assessment of Agreement: An Application of Cohen's Kappa in the Screening of Diabetic Retinopathy
• Takeaki Kariya, Meiji University, Japan
  Measuring Credit Risk of Individual Corporate Bonds and Deriving Term Structures of Default Probabilities

5:30PM – 6:15PM  ALUMNI RECOGNITION & STUDENT AWARD PRESENTATIONS
LECTURE HALL 7 (ROOM 104)
Coordinator: Nagaraj Neerchal, UMBC

Alumni Recognition:
• Philip Rous, Provost, UMBC
• Kofi Adragni, UMBC

Presentation of Awards:
• Kevin Drummey, MD Chapter of ASA
• Megan Waterman, MD Chapter of ASA

6:15PM – 7:00PM  RECEPTION

7:30PM – 9:30PM  CONFERENCE DINNER
PARADISE INDIAN CUISINE
1660 Whitehead Court ◆ Gwynn Oak, MD 21207

Introduction of Speaker: Nagaraj Neerchal, UMBC
Speaker: Joseph McCloskey, National Security Agency
Title: A Tale of Two Careers