

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 Adragani, 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
- **Sandya 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 Mbodj, 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 Adragani, 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**