

**4<sup>th</sup> ANNUAL PROBABILITY AND STATISTICS DAY  
& SILVER JUBILEE CELEBRATION OF  
STATISTICS GRADUATE PROGRAM  
AT UMBC**

FUNDED BY NATIONAL SECURITY AGENCY

***SATURDAY, APRIL 24, 2010  
INFORMATION TECHNOLOGY/  
ENGINEERING (ITE) BUILDING***

**FINAL PROGRAM**

**8:00AM - 9:00AM REGISTRATION AND BREAKFAST**

**9:00AM - 9:30AM OPENING SESSION**  
***LECTURE HALL 7***

- Welcome by Elliot Hirshman, UMBC Provost
- Welcome by Nagaraj Neerchal, Chair of Department of Mathematics and Statistics
- Observations by Bimal Sinha, Conference Chair

**9:30AM - 10:15AM KEYNOTE ADDRESS I**  
***LECTURE HALL 7***

Introduction of Speaker: Thomas Mathew  
Speaker: **Raymond Carroll, Texas A&M University**  
Title: **Robust Powerful Methods for Understanding Gene-Environment Interactions**

**10:15AM - 11:00AM KEYNOTE ADDRESS II**  
***LECTURE HALL 7***

Introduction of Speaker: Nagaraj Neerchal  
Speaker: **Nancy L. Geller, NHLBI/NIH**  
Title: **Confirmatory Clinical Trial Designs for Biomarkers**

**11:00AM - 11:30AM COFFEE BREAK**

**11:00AM - 4:00PM POSTER SESSION**  
***LOBBY AREA***

**Student Presenters**

- **Jordan Ash**, Johns Hopkins School of Medicine  
*Measuring the Effects of Communication in the Intensive Care Unit as Part of an Intervention to Reduce Bloodstream Infections*
- **Xiaoyu Dong**, UMBC  
*Central Tolerance Regions for Multivariate Normal Populations*
- **Brandon Fleming**, UMBC  
*Estimating Missing Values from Categorical Datasets of EMT Injuries*
- **Hui Huang**, UMBC  
*Testing Procedure of 2D Electrophoresis Gels Across Groups Based on ICA*
- **Jia-Ern Pai**, UMBC  
*Applications of Bootstrap Methods on Population Variance Inference*
- **Andrew Raim**, UMBC  
*Maximum Likelihood Estimation of the Random-Clumped Multinomial Model using High Performance Computing*
- **Anna Sun**, UMBC  
*NIR Spectroscopy Data Pre-processing using SAS*
- **Airong Yu**, UMBC  
*Does Bed Sharing Activity Influence on the "ever" Breastfeeding Duration?*

**Judges**

- Prasanta Basak
- Martin Klein
- Stephen Meskin
- Rupa Mitra
- Yijun Sun
- Yukun Wu

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

***SESSION A* ♦ *ROOM 227***

***ORAL PRESENTATIONS BY GRADUATE STUDENTS I***

Chair: **Rong Wei**, NCHS

**Student Presenters**

- **Michelle Danaher**, UMBC/NIH  
*Gene-Environment Interaction by Pooling Biospecimens*
- **Elizabeth Stanwyck**, UMBC  
*Ambient Air Pollutants and Mortality: A Meta-Analysis*
- **James Travis**, UMBC  
*Analysis of the Probability of Zero Rain using an Alternating Renewal*

*Process Approach*

- **Abera Wouhib**, UMBC/NCHS/CDC  
*A Meta-Analysis Review in Estimating an Alternative Heterogeneity Variance in One-Way Random Effect Model*

**Judges**

- Indrani Basak
- Aref Dajani
- Justin Newcomer
- Lei Nie
- Yan Yan Zhou

**SESSION B** ♦ **ROOM 229****ORAL PRESENTATIONS BY GRADUATE STUDENTS II**Chair: **Chris Morrell**, Loyola University**Student Presenters**

- **Deepak Ayyala**, UMBC  
*A Test for the Mean Vector in Large Dimension and Small Sample*
- **Justin Jacobs**, UMBC  
*Multiple Uses of the Proximity Matrix*
- **Gaurav Sharma**, UMBC  
*Two-Sided Tolerance Intervals in General Mixed Effects Models*
- **Dihua Xu**, UMBC  
*Testing Homogeneity for Proportions Across Several Independent Experiments with Sparse Data*

**Judges**

- Kevin Drummey
- Xiaoming Li
- Jorge Morel
- Nabendu Pal

**SESSION C** ♦ **LECTURE HALL 7****SPECIAL INVITED PRESENTATIONS**Chair: **Paul White**, NCEA/ORD/USEPA**Speakers**

- **Paul Schuette**, FDA  
*Power and Sample Size Calculations for Drug Exposure Registries using Exact Methods*
- **Yves Thibaudeau**, U.S. Census Bureau  
*Modeling Log-Linear Conditional Probabilities for Prediction in Surveys*
- **Michael Baron**, University of Texas at Dallas  
*Optimization of Error Spending and Power Spending in Sequential*

*Designs*

- **Ranjan Maitra**, Iowa State University  
*Assessing Significance in Finite Mixture Models and Model-based Clustering*

**SESSION D** ♦ **LECTURE HALL 8****BIOSTATISTICS SESSION**Chair: **Sati Mazumdar**, University of Pittsburgh**Speakers**

- **Qing Pan**, George Washington University  
*An Estimation Method of Marginal Treatment Effects on Correlated Longitudinal and Survival Outcomes*
- **Anastasia Ivanova**, University of North Carolina at Chapel Hill  
*Adaptive Dose Finding*
- **Ciprian M. Crainiceanu**, Johns Hopkins University  
*My First 100 Terabytes of Data*
- **Ming T. Tan**, University of Maryland School of Medicine  
*Adaptive Designs for Clinical Trials based on Conditional Likelihood*

**1:30PM - 2:45PM LUNCH BREAK AND PHOTO SESSION****2:45PM - 3:30PM KEYNOTE ADDRESS III**  
***LECTURE HALL 7***

Introduction of Speaker: Anindya Roy

Speaker: **Bruce Lindsay, Penn State University**Title: **Mixture Models as a Tool in Nonparametrics****3:30PM - 4:15PM KEYNOTE ADDRESS IV**  
***LECTURE HALL 7***

Introduction of Speaker: Bimal Sinha

Speaker: **Ronald Butler, Southern Methodist University**Title: **A Modern View and Survey of Multivariate Testing****4:15PM - 4:30PM COFFEE BREAK****4:30PM - 5:30PM SPECIAL ALUMNI RECOGNITION SESSION**  
***LECTURE HALL 7***

- Chief Guest (academic): Philip Rous, Dean, College of Natural and Mathematical Sciences, UMBC
- Chief Guest (administrative): Greg Simmons, VP for Institutional Advancement, UMBC
- Introduction of Alumni: Anindya Roy

- Presentation of Memento

**5:30PM - 6:00PM STUDENT AWARD PRESENTATIONS**  
***LECTURE HALL 7***

- Presentation of Awards: Sastry Pantula, President, American Statistical Association

**6:00PM - 6:45PM REFRESHMENTS**

**7:00PM - 10:00PM CONFERENCE DINNER**  
***ATRIUM, PUBLIC POLICY BUILDING, UMBC***

Introduction of Banquet Speaker: Nagaraj Neerchal

Speaker: **Sastry Pantula, President, American Statistical Association**

Title: **All I Want to Do When I Grow Up – be an ASA President!**