

# PROB/STAT DAY at UMBC, 2007

Department of Mathematics and Statistics  
University of Maryland, Baltimore County

## Final Program

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**Saturday, April 28, 2007**

**UMBC, ITE Building**

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**Registration (Tea/Coffee) : 8:00 am - 8:50 am, ITE Building, Lobby**

**Welcome address : 8:50 am - 9:15 am, Room 104**

**Nagaraj Neerchal, Chair, Dept. of Math & Stat**  
**Geoff Summers, Dean, CNMS, UMBC**  
**Bimal K. Sinha, Chair, Organizing Committee**

**Keynote Address I ( Room 104, 9:15 am - 10:00 am )**

**Chair : Bimal K. Sinha, UMBC**

**Keynote address by David Banks, Duke University**

**Title : Verification and Validation of Complex Computer Models**

**Plenary Session I ( Room 104, 10:00 am - 11:00 am )**

**Chair : Nagaraj Neerchal, UMBC**

**Invited Lecture I-1 : 10:00 am – 10:30 am**

**Speaker : Dulal Bhaumik (University of Illinois, Chicago)**

**Title : Sequential Prediction Bounds for Identifying Differentially Expressed Genes in Replicated Microarray Experiments**

**Invited Lecture I-2 : 10:30 am – 11:00 am**

**Speaker : Nabendu Pal (University of Louisiana at Lafayette)**

**Title : A Revisit to the Common Mean Problem: Comparing the Maximum Likelihood Estimator with the Graybill-Deal Estimator**

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**Tea/Coffee Break ( 11:00 am - 11:30 am )**  
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**Special Invited Session I ( Room 104, 11:30 am - 12:45 pm )**

**Chair : Larry Magder, University of Maryland at Baltimore**

**Speaker 1 : Colin Wu (National Heart Lung and Blood Institute)**

**Title : Nonparametric estimation for conditional distribution functions and time-varying transformation models with longitudinal data**

**Speaker 2 : Brian S. Caffo (Johns Hopkins Bloomberg School of Public Health)**

**Title : A Case Study in Colon Tracking in Single Photon Emission Computed Tomography Images**

**Speaker 3 : Rajeshwari Sundaram (National Institute of Child Health and Human Development)**

**Title : Marginal Estimation in Multistage Models Using Current Status Data**

**Technical Session ( Room 102, 11:30 am - 12:45 pm )**

**Chair : Meena Khare, National Center for Health Statistics**

**Speaker 1 : Chris Morrell (Loyola College)**

**Title : Modeling Change in Longitudinal Studies: Use Age Only or Initial Age and Time?**

**Speaker 2 : Moustapha Pemy (Towson University)**

**Title : Liquidation of a large block of Stock**

**Speaker 3 : Andrew Tangborn (UMBC, JCET)**

**Title : Geomagnetic Data Assimilation**

**Student Oral Presentations I (Room 227, 11:30 am - 12:45 pm )**

**Chair : Dulal Bhaumik, University of Illinois at Chicago**

**Judges : Kevin Drummey (NSA), Nabendu Pal (ULL),  
Tapan Nayak (GWU), Rong Wei (NCHS)**

**Speakers : Justin Newcomer (UMBC), Patrick Huang (GWU),  
Sheng Luo (JHU), Ying Xie (Rutgers U)**

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**Lunch Break / Poster Presentations**  
**( ITE Building Lobby, 12:45 pm - 2:00 pm )**

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**Student Poster Judges :** Xiaoming Li (Sanofi-Aventis) , Pranab Mitra (Bristol-Myers Squibb),  
Gitanjali Paul (Glaxo Simth Kline), Yijun Sun (Eisai Inc),  
Mary C. Wilson (UMBC), Ionut Bebu (Georgetown U)

**Student Presenters :** Will Gretes & Justin Newcomer (UMBC), Mathangi Gopalakrishnan (UMBC),  
Aarti Gupta (UMBC), Martin Klein (UMBC), Willy Weng (UMBC),  
Ravi K. Siddani (UMBC), Elizabeth Stanwyck (UMBC), Fatma Shebl (UMB)

**Non-Student Presenters :** Stacy Hill (JHU), H. Pepi Lacayo (USEPA)

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### **Special Invited Session II ( Room 104, 2:00 pm - 3:15 pm )**

**Chair :** Anindya Roy (UMBC, Math & Stat)

**Speaker 1:** Tulay Adali (UMBC, CSEE)

**Title :** Complex-valued Independent Component Analysis : The Maximum Likelihood Approach

**Speaker 2:** Prasun K. Kundu (UMBC, JCET)

**Title :** Understanding Irregular Variability of Atmospheric Processes in Probabilistic Terms

**Speaker 3:** Shari R. Waldstein (UMBC, Psychology)

**Title :** Hypertension and Cognitive Function: Effect Modifiers and Potential Underlying Mechanisms

### **Student Oral Presentations II ( Room 227, 2:00 pm - 3:15 pm )**

**Chair :** Nabendu Pal, University of Louisiana at Lafayette

**Judges :** Kevin Drummey (NSA), Kepher H. Makambi (Howard U),  
Tapan Nayak (GWU), Rong Wei (NCHS)

**Speakers :** Seunggeun Hyun (NICHD/UNCC), Ioana Cipcigan (UMBC),  
Aarti Gupta (UMBC), Lan Li (UMBC)

### **Student Oral Presentations III ( Room 231, 2:00 pm - 3:15 pm )**

**Chair :** Lei Nie, Georgetown University

**Judges :** Dulal Bhaumik (UIC), Mike Messner (USEPA),  
Barry Nussbaum (USEPA), Meena Khare (NCHS)

**Speakers :** Ines Urrestarazu (UMBC), Yu Shu (GWU),  
Natalia Tchetcherina (PSU), Yukun Wu (UMBC)

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**Intermission ( 3:15 pm - 3:30 pm )**

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**Plenary Session II ( Room 104, 3:30 pm - 4:30 pm )**

**Chair : Joe McCloskey, NSA**

**Invited Lecture II-1 : 3:30 pm – 4:00 pm**

**Speaker : Reza Modarres (George Washington University)**

**Title : Upper Level Set Scan Statistic for Detection of Disease and Crime hotspots**

**Invited Lecture II-2 : 4:00 pm – 4:30 pm**

**Speaker : James C. Spall (Johns Hopkins University)**

**Title : The Information Matrix : Basic Principles and Efficient Computation**

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**Tea/Coffee Break ( 4:30 pm - 5:00 pm )**

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**Keynote Address II ( Room 104, 5:00 pm - 5:45 pm )**

**Chair : Andrew Rukhin**

**Keynote address by Pranab K. Sen, University of North Carolina at Chapel Hill**

**Title : Kendall's Tau in High-dimensional Parsimony**

**Announcement of Student Awards ( Room 104, 5:45 pm – 6:00 pm )**

**Vote of Thanks by Nagaraj Neerchal (Chair of Dept. Math & Stat, UMBC)**  
( Room 104, 6:00 pm – 6:15 pm )

**Reception ( ITE Building, Lobby, 6:15 pm – 7:00 pm )**

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**End of PROB/STAT Day ( 7:00 pm )**

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**Conference Dinner ( Bombay Peacock Grill, 7:00 pm – 10:00 pm )**

Around 8:00 pm

**Dinner Speech by Barry Nussbaum (USEPA)**  
**Title : Data Counts, So Count it Carefully**