

UMBC

AN HONORS UNIVERSITY IN MARYLAND

Department of
MATHEMATICS & STATISTICS

14th ANNUAL PROBABILITY & STATISTICS DAY AT UMBC

Saturday, April 22, 2023

Room 116, Interdisciplinary Life Sciences Building (ILSB)

Program

8:00 AM – 9:00 AM **REGISTRATION & BREAKFAST**
LOBBY, Interdisciplinary Life Sciences Building (ILSB)

9:00 AM-9:15 AM **WELCOME**

Room 116, ILSB

Thomas Mathew

Professor, Department of Mathematics & Statistics, UMBC

Animikh Biswas

Chair, Department of Mathematics & Statistics, UMBC

9:15 AM-10:00 AM **KEYNOTE ADDRESS I**

Room 116, ILSB

Introduction of Speaker: Yaakov Malinovsky, UMBC

Speaker: Lynne Billard, University of Georgia

Title: *Distributions are the numbers of the future: Symbolic data analysis*

10:00 AM-10:45 AM **KEYNOTE ADDRESS II**

Room 116, ILSB

Introduction of Speaker: Yi Huang, UMBC

Speaker: Scott Evans, George Washington University

Title: *Our most important discovery: The question*

10:45 AM – 11:15 AM **COFFEE BREAK**

11:15 AM-NOON **KEYNOTE ADDRESS III**

Room 116, ILSB

Introduction of Speaker: Thu Nguyen, UMBC

Speaker: Rahul Mazumder, MIT

Title: *New directions in solving structured nonconvex problems in statistical learning*

NOON-12:45 PM **KEYNOTE ADDRESS IV**

Room 116, ILSB

Introduction of Speaker: Anindya Roy, UMBC

Speaker: Jianqing Fan, Princeton University

Title: *FAST-NN for big data modeling*

12:45 PM – 02:00 PM **PHOTO SESSION & LUNCH**

02:00 PM – 03:45 PM *INTERNATIONAL INVITED SESSION*

Room 116, ILSB

Chair: Yehenew G. Kifle, UMBC

UMBC's African International Conference: Some Highlights

Speaker: Yehenew G. Kifle, UMBC

Copula-based link functions in binary regression models

Speaker: Mohamed Belalia, University of Windsor, Canada

Inventory models for deteriorating items with stock dependent production and demand rates having Weibull decay

Speaker: Essey Kebede Muluneh, Bahir Dar University, Ethiopia.

03:45 PM – 04:15 PM *COFFEE BREAK*

04:15 PM – 05:45 PM *ORAL PRESENTATIONS BY GRADUATE STUDENTS*

Room 116, ILSB

Coordinator and Chair: DoHwan Park, UMBC

Data-adaptive binary classifiers in high dimensions using random partitioning

Vahid Andalib, UMBC

Applications of the Dirichlet distribution in microbiome studies

Daniel Fuller, Clarkson University

Spectral analysis approach for assessing accuracy of a low-cost air quality sensor network data

Vijay Kumar, Clarkson University

Detecting transitions between collective motion regimes using functional hypothesis test of the time-varying persistence homology

Thevasha Sathiyakumar, Clarkson University

Correction models for estimation of PM_{2.5} from low-cost sensor data: effects of distance and sensor numbers

Dinushani Senarathna, Clarkson University

High dimensional classification and clustering with feature selection

Yong Wang, George Washington University

04:15 PM – 05:45 PM *POSTER PRESENTATIONS BY GRADUATE STUDENTS*

Lobby, ILSB

Coordinator: Seungchul Baek, UMBC

Comparing the outcome of different dimensionality reduction techniques implemented on spatially-distributed river microbiome profiles

Kariyawasam Dias, Clarkson University

COVID-19 in the United States during pre-vaccination period: Empirical evidence from negative binomial regression models

Sucharitha Dodamgodage, Clarkson University

FLIP: A utility preserving privacy mechanism for time series

Gaurab Hore, UMBC

Scalable variable method for hierarchical spatial models

Jin Hyung Lee, George Mason University

Flexible basis representations for modeling high-dimensional hierarchical spatial data

Remy MacDonald, George Mason University

Blinded monitoring of antibiotic susceptibility testing result in SMART-COMPASS clinical trials

Xiaoyan Yin, The George Washington University

Designing clinical trials with clinical and stewardship outcomes as co-primary Endpoints using desirability of outcome ranking methodology

Shanshan Zhang, The George Washington University

05:45 PM – 06:15 PM *RECOGNITION CEREMONY & STUDENT AWARD PRESENTATIONS*

Room 116, ILSB

Alumni Recognition: Nagaraj Neerchal, UMBC

Presentation of Awards:

Nagaraj Neerchal, UMBC

Andrew Raim, U.S. Census Bureau

06:15 PM – 07:00 PM *RECEPTION*

Lobby, ILSB

07:30 PM – 09:30 PM *CONFERENCE DINNER*

Mint Room Indian Restaurant

9469 Baltimore National Pike, Ellicott City, MD 21042

Introduction of Banquet Speaker: Bimal Sinha, UMBC

Banquet Speaker: Dionne Price, President, ASA

Deputy Director, Office of Biostatistics, Office of Translational
Sciences, Center for Drug Evaluation and Research, U.S. FDA

Title: *TBA*