

Program: IWMS 2021

December 13, 2021 (Monday, Day 01)**09:15 - 09:45 - Inauguration**

- Opening Remarks & Welcome Address: K. Manjunatha Prasad, Coordinator, CARAMS, MAHE
- **Lighting the lamps**
- Overview of the events : Ravindra B Bapat, Chairman, SAC
- About IWMS & Welcome: Simo Puntanen, President IWMS
- Address by Chair, LOC: Narayana Sabhahit, Registrar, MAHE
- Message from Director, SMIT, SMU
- **Release of Souvenir**
- Inaugural Address: Helmut Brand, Director, PSPH, MAHE, Manipal
- Vote of Thanks

09:45 - 10:15 Tea Break & Group Photo**SESSION 1 (10:15 - 11:05)**

Chair Person: Steve Haslett, Massey University, New Zealand

10:15 - 11:05 Arni Srinivasa Rao, Medical College of Georgia, Augusta University, USA
Exact Deep Learning Machines, Artificial Intelligence, and Deep Learning Methods

SESSION 2 (11:10 - 12:00)

Chair Person: Arup Bose, Indian Statistical Institute, Kolkata, India

11:10 - 12:00 Susmita Datta, University of Florida, Gainesville, USA
Statistical Analysis of single cell RNA sequencing (ScRNA-seq) data

SESSION 3 (12:00 - 13:00)

Chair Person: Katarzyna Filipiak, Poznan University of Technology, Poland

12:00 - 13:00 Contributory Talks

- Una Radojčić, Venna University of Technology, Vienna, Austria
Kurtosis-based projection pursuit for matrix-valued data
- Sandra S. Ferreira, Center of Mathematics and Applications, University of Beira Interior, Portugal
Prediction intervals in Bi-additive Models
- Mahendra Kumar Gupta, National Institute of Technology Jamshedpur (CT 7)
Impulse controllability in rectangular descriptor systems

13:00 - 14:00 Lunch Break

SESSION 4 (14:00 - 15:30)*Chair Person: Simo Puntanen, Tampere University, Finland*

14:00 - 15:30 Dietrich von Rosen, Swedish University of Agricultural University, Sweden
Matrix Decompositions in Linear / bilinear Methods

15:30 - 15:50 Tea Break**SESSION 5 (15:50 - 17:05)***Chair Person: Dietrich von Rosen, Swedish University of Agricultural University, Sweden*

15:50 – 16:25 Augustyn Marckiewicz, Poznan University of Life Science, Poland
Covariance matrix estimation based on matrix projection

16:30 – 17:05 Martin Singull, Linkoping University, Sweden
Residual Analysis for the GMANOVA-MANOVA Model

December 14, 2021 (Tuesday, Day 02)**SESSION 6 (09:10 – 10:40)***Chair Person: Asha Kamath, DDS, PSPH, Manipal Academy of Higher Education, Manipal*

09:10 – 09:50 Steve Haslett, Massey University, New Zealand
The role of block diagonal matrices in conditions for equality of BLUEs in linear models

09:50 – 10:40 N Balakrishnan, McMaster University, Canada
Some interesting feature of linear prediction

10:40 – 11:00 Tea Break**SESSION 7 (11:00 – 12:00)***Chair Person: Shreemathi Mayya, Manipal Academy of Higher Education, Manipal, India***11:00 – 12:00 Contributory Talks**

- Pooja B. S., Department of Data Science, PSPH, MAHE, Manipal, India
Multilevel Analysis of Self-reported Asthma prevalence and its risk factors in India using NFHS-4
- Raksha Poojary, Manipal Academy of Higher Education, Manipal, India
On 2-Stress Regular Graphs
- Umashankara Kelathaya, Manipal Academy of Higher Education, Manipal, India
A note on reverse order law for outer inverses

SESSION 8 (12:00 – 13:10)*Chair Person: Martin Singull, Linkoping University, Sweden*

12:00 – 12:35 Simo Puntanen, Tampere University, Finland
A Review of the Linear Sufficiency

12:35 – 13:10 Katarzyna Filipiak, Poznan University of Technology, Poland
Frobenius norm, entropy and quadratic loss functions as the measures of discrepancy from structured matrices

13:10 - 14:10 **Lunch Break**

SESSION 9 (14:10 - 16:10), Mini-Symposium

Organizer: S. K. Neogy, Indian Statistical Institute, Delhi

Topic : Recent Methodologies in Big Data Analysis

Speakers: Santosh Singh, Shiv Nadar University, UP, India
Trends in Big Data Technologies S.K. Neogy, Indian Statistical Institute, Delhi Centre
Statistics & Big data: A Research Paradigm Shift Andrzej Janusz, Q.E.D. Software, Poland
Learning from Video Game Logs: the Human-in-the-Loop Approach

16:10 - 16:30 **Tea Break**

SESSION 10 (16:30 – 17:05)

Chair Person: Vasudeva Guddattu, DDS, PSPH, Manipal Academy of Higher Education, Manipal

16:30 – 17:05 Somdeb Lahiri, Pandit Deendayal Energy University, Gujarat, India
Game theory for decision making under ambiguity

December 15, 2021 (Wednesday)

SESSION 11 (09:30 - 10:30)

Chair Person: Vani Lakshmi R, Department of Data Science, PSPH, MAHE, Manipal, India

09:30 - 10:30 Contributory Talks

- K Nayan Bhat, St. Joseph's College (Autonomous), Bangalore, India
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- Pankaj Manjhi, Vinoba Bhave University, Hazaribag, India
A look on Hadamard Matrices
- Shovan Chowdhury, Indian Institute of Management Kozhikode, India
Vector Majorization based Stochastic Comparison of Order Statistics for Gompertz–Makeham Random Variables

10:30 - 11:00 **Tea Break**

SESSION 12 (11:00 - 12:00)

Chair Person: Anisha P, Department of Data Science, PSPH, MAHE, Manipal, India

11:00 - 12:00 Contributory Talks

- K Ravinder Reddy, Kakatiya University, Warangal, India
Restricted Fuzzy Assignment Problem with Trapezoidal Fuzzy Numbers
- Chepuri Rajita, Kakatiya University, Warangal, India
Fuzzy Assignment Problem with Random Triangular Fuzzy Numbers
- Krishna Kumar G, BJM Government College, Chavara, Kollam, India
Pseudoeigenvectors of bounded linear operators
- Stanislav Anatolyev, CERGE - Economic Institute, Prague, Czech Republic
Testing many restrictions under heteroskedasticity
- Bilal Mohammad Ahmad Eneizan, Business School, Jadara University, Irbid, Jordan
Artificial intelligence (AI) in marketing (customer service): Ease of use, usefulness, trust, problem-solving ability

SESSION 13 (12:00 – 12:50)

Chair Person: Sharad S Sane, Chennai Mathematical Institute, Chennai

12:00 – 12:50 Anish Sarkar, Indian Statistical Institute, Delhi
Hack's Law in a Drainage Network Model: A Brownian Web Approach

13:00 - 14:00 **Lunch Break**

SESSION 14 (14:00 – 14:50)

Chair Person: Simo Puntanen, Tampere University of Technology, Finland

14:00 – 14:50 Arup Bose, Indian Statistical Institute, Kolkata
Random Matrices

SESSION 15 (15:00 - 15:50)

Balaji Ramamurthy, Indian Institute of Technology Madras, India

15:00 - 15:50 Abraham Berman, Technion-Israel Institute of Technology, Israel
Completely Positive Matrices

16:00 – 17: 20 **Tea Break & Break**

SESSION 16 (17:20 – 18:00)

Chair Person: Sudhakara G, Manipal Institute of Technology, MAHE, Manipal, India

17:20 – 18:00 Rafikul Alam, Indian Institute of Technology Guwahati, India
A trace-moment based method for solving holomorphic eigenvalue problems

Mini Symposium (SESSION 17; 18:00 – 19:30)

Organizer: George PH Styan, McGill University, Canada

18:00 – 19:30

Speakers: Garry Ka Lok Chu, Dawson College, Canada
Simo Puntanen, Tampere University, Finland
George PH Styan, McGill University, Canada

Title: A further introduction to Philatelic Lattice Grids (PLGs) with four-sided stamps
(First International Mini-Symposium on Mathematical Philately)

19:30 - Valedictory Function

Remarks: Participants

Closing Remarks: Simo Puntanen, IWMS President
GPH Styan, IWMS Hon. President

Vote of Thanks: K. Manjunatha Prasad, Convener, SAC

19:45 **Dinner**