

Applied Linear Algebra, Probability, and Statistics (ALAPS 2023)

A two-day symposium in honor of Prof. C R Rao

September 24 – 25, 2023

Center for Advanced Research in Applied Mathematics and Statistics

MAHE, Manipal, India

SCHEDULE

September 24, 2023

Student Activities

09:00 - 09:45	Registration + High Tea
10:00 – 10:30	Quiz Prelims
10:00 – 11:00	Collage Preparation
11:00 – 12:30	Oral Presentation*
10:30 – 13:00	Contributory talks (5 online +3 offline)#
13:00 – 14:00	Lunch Break
14:00 – 15:00	Quiz Final
15:00 – 15:30	Distribution of participation certificates + Tea

*Oral Presentation

11:00 – 11:10	Nikshitha, <i>Dr. NSAM First Grade College Nitte</i>
11:10 – 11:20	K Varsha, <i>Mangalore University, Konaje</i>
11:20 – 11:30	K Shreevathsa, <i>PSPH, MAHE, Manipal</i>
11:30 – 11:40	Cyril Biji, <i>PSPH, MAHE, Manipal</i>
11:40 – 11:50	Fathimath Thoufira, <i>St. Aloysius College, Mangaluru</i>
11:50 – 12:00	Chaithanya N Bhat, <i>Poornaprajna College, Udupi</i>
12:00 – 12:10	Subrahmanya Shenoy, <i>Poornaprajna College, Udupi</i>
12:10 – 12:20	Rakshitha R Adiga, <i>Poornaprajna College, Udupi</i>

#Contributory Talks

September 24, 2023

Chair – Sudhakara G, Poorna Prajna College, Udupi

10:30 – 10:50	David Raj Micheal, <i>VIT Chennai</i> Title: Note on the divisibility of k-nomial coefficients
10:50 – 11:10	Savitha V, <i>PSPH, MAHE, Manipal</i> Title: GCN decomposition in the context of Rings

- 11:10 – 11:30 Umashankara Kelathaya, *PSPH, MAHE, Manipal*
Title: Computing s -g Inverse – A few Methods
- 11:30 – 11:50 Debajit Kalita, *Tezpur University, Tezpur*
Title: First eigenvectors of nonsingular weighted directed graphs

Chair – Arathi Bhat, Manipal Institute of Technology, MAHE

- 11:50 – 12:10 Mr. Shrinath Hadimani, *Indian Institute of Science Education and Research, Thiruvananthapuram*
Title: Bounds on the eigenvalues of special type of matrix rational functions
- 12:10 – 12:30 Pallavi B, *Indian Institute of Science Education and Research, Thiruvananthapuram*
Title: The Hoffman-Wielandt (type) inequality for quaternion matrices and quaternion matrix polynomials
- 12:30 – 12:50 Shubham Khansili, *The University of Sheffield, United Kingdom*
Title: PDE-based deployment with communicating leaders for large-scale multi-agent systems
- 12:50 – 13:10 Argha Ghosh, *Manipal Institute of Technology, MAHE, Manipal*
Title: Ideal convergence of sequences of metric-valued random variables

September 25, 2023 - Monday

09:30 – 11:15 **Release of Edited Book-Volume and Special Issue of AKCE Int. J. Graph. Comb. in honor of Rao & Lal**

09:30 – 09:35 Welcome Address: K. Manjunatha Prasad
Lighting the Lamp
Floral Tribute to CR Rao by the dignitaries

09:35 – 09:40 About CARAMS, MAHE: Savitha V
09:40 – 09:45 About Rao: Bhagyajyothi Rao
09:45 – 09:50 About book dedicated to Rao & Lal: R B Bapat, ISI Delhi
09:50 – 09:55 Release of book-volume and special issue
09:55 – 10:00 Address: BLS Prakasa Rao, CR Rao AIMSCS (Chief Guest)
10:05 – 10:10 Address: Narayana Sabhahit, Pro Vice Chancellor (Tech & Sci)
10:10 – 10:15 Vote of Thanks: Arathi Bhat

10:20 -13:00 **Tribute to C R Rao & Technical Session**

10:20 – 11:30 Open Session of Tribute to Calyampudi Radhakrishna Rao
Organizers: Shreemathi Mayya, DDS, PSPH, MAHE and David Raj
Michael, Vellore Inst. Tech., Chennai

Invited Talks

Chair - Kuncham Syam Prasad, Manipal Institute of Technology, MAHE

11:30 – 12:10 Simo Puntanen, Tampere University, Finland
*Remarks on Professor C.R. Rao's life and work leading to the 2023
International Prize in Statistics*

Chair – Asha Kamath, Department of Data Science, PSPH, MAHE

12:15 – 12:55 B L S Prakasa Rao, C R Rao AIMSCS, Hyderabad, India
Big Data - Fundamentals

13:00 -13:45 **Lunch Break**

13:45 – 14:30 **Invited Talk**

Chair – Harikrishnan P, Manipal Institute of Technology, MAHE

13:45 – 14:30 S. K. Neogy, Indian Statistical Institute, Delhi Center, India
*On Special Matrix Classes in Linear Complementarity Theory and their
Applications in Lemke's Algorithm*

14:30 – 16:10 Contributory Talks

Chair – Vasudeva Guddattu, Department of Data Science, PSPH, MAHE

14:30 – 14:50 Harshitha A, *Manipal Institute of Technology, MAHE, Manipal*
Title: Bounds for Energy of a Graph and its Complement with Self
Loops

14:50 – 15:10 Madhumitha K V, *Manipal Institute of Technology, MAHE, Manipal*
Title: Minimum covering maximum reverse degree energy of graphs

15:10 – 15:30 Shashwath Shetty, *Manipal Institute of Technology, MAHE, Manipal*
Title: Degree Based Energies of Graphs with Self-Loops

15:30 – 15:50 Kamalakshi K, *Mangalore University, Konaje*
Title: Numerable Bundles and Bundles of Finite Type

15:50 – 16:10 Akshata Shenoy, *Mangalore University, Konaje*
Title: Minimum Dominating Spectra of graphs

16:15 – 16:45 Valedictory Session
Prize & Certificate Distribution