



INDIAN ACADEMY OF SCIENCES

P.B. No. 8005, C V Raman Avenue, Raman Research Institute Campus, Bengaluru 560080

34th MID-YEAR MEETING

7 - 8 July 2023

Venue: Auditorium, Biological Sciences Building, Indian Institute of Science, Bengaluru

Programme

Friday 7 July 2023

09.00-09.30	Registration
09.30-10.10	Session 1A: Special Lecture Chairperson: Basudeb Datta, Kolkata K Kesava Rao, IISc, Bengaluru Defluoridation of drinking water
10.10-11.00	Session 1B: Inaugural Lectures by Fellows / Associates Chairperson: R R Navalgund, Bengaluru
10.10-10.30	Nitin Saxena, IIT, Kanpur Algebra powers computation
10.35-10.55	Ramendra S Dey, INST, SAS Nagar, Punjab Electrochemical synthesis of green ammonia: Prospects and challenges
11.00-11.20	Tea break
11.20-13.00	Session 1C: Inaugural Lectures by Fellows / Associates Chairperson: Manju Bansal, IISc Bengaluru
11.20-11.40	Somnath Bharadwaj, IIT, Kharagpur Cosmology with the redshifted HI 21-cm line
11.45-12.05	Soumen Chakrabarti, IIT Bombay, Mumbai Neural graph retrieval and alignment
12.10-12.30	Vidya M Prasad, IISc, Bengaluru 3D snapshots into virus life-cycles using cryo-electron tomography and sub-tomogram averaging
12.35-12.55	Narayan Pradhan, IACS, Kolkata Light emitting lead halide Perovskite nanocrystals
13.00-14.30	Lunch break
14.30-16.30	Session 1D: Symposium Developing Chat-GPT for India: Challenges & Opportunities in building Large Language Models. Convener: Chiranjib Bhattacharyya, IISc, Bengaluru
14.30-14.35	An overview: Chiranjib Bhattacharyya
14.35-14.55	Partha Pratim Talukdar, CDS & CSA, IISc, Bengaluru and Google Research India Large language models for India
14.55-15.15	Monojit Choudhury, Microsoft Research India Safety, infrastructure and language: The three scaling challenges of LLMs
15.15-15.35	Vasudeva Varma, IIIT Hyderabad and Brane Enterprises Pvt Ltd Leveraging multilingual large language models to generate grounded encyclopaedic articles in Indian languages: Challenges and opportunities

15.35-16.30	Panel Discussion / Q&A Session
16.30-17.00	High Tea
18.00-19.00	Session 1E: Public Lecture Chairperson: Umesh Waghmare, President, Indian Academy of Sciences, Bengaluru Kavery Nambisan, A Surgeon and Novelist Health, education and communities - The future of a nation
19.00	Dinner

Saturday 8 July 2023

09.30-10.10	Session 2A: Special Lecture Chairperson: G C Anupama, IIA Bengaluru J N Chengalur, TIFR, Mumbai Gas and galaxy evolution
10.10-10.55	Session 2B: Inaugural Lectures by Fellows / Associates Chairperson: N Sathyamurthy, Bengaluru
10.10-10.30	Veerendra K Sharma, BARC, Mumbai Physics of the action mechanism of antimicrobial peptides
10.35-10.55	B S Daya Sagar, ISI, Bengaluru Mathematical morphology in geosciences and geospatial data sciences
11.00-11.20	Tea break
11.20-13.00	Session 2C: Inaugural Lectures by Fellows / Associates Chairperson: Rajiva Raman, Banaras Hindu University, Varanasi
11.20-11.40	Jayasri Das Sarma, IISER, Kolkata Mouse hepatitis virus-induced neuroinflammation in an experimental animal model helps better understand the complex mechanism of human demyelinating disease Multiple Sclerosis.
11.45-12.05	Ruchi Anand, IIT Bombay, Mumbai Deciphering the mechanism of ribosomal methyltransferases mediated antibiotic resistance
12.10-12.30	D Pallamraju, PRL, Ahmedabad Aurora and Airglow : Tracers of space weather
12.35-12.55	Soumen Basak, NII, New Delhi Investigating immunoregulatory roles of cell signaling crosstalk
13.00	Lunch and closure of the meeting