# IISER KOLKATA Newsletter



### May, 2025

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Indian Institute of Science Education and Research Kolkata (IISERK) is an Institute of National Importance established as an autonomous institute for higher education by the then Ministry of Human Resource Development (now Ministry of Education), Government of India, to promote high-quality education and research in basic sciences.

We are glad to share that IISER Kolkata secured second position in the Nature Index ranking for Academic Institutions in Earth and Environmental Sciences for the period Feb 2024 to Jan 2025.



## Medical & Eye Camp









An Eye Camp was held at IISER Kolkata on 6th May 2025 in collaboration with Disha Eye Hospital. The event offered free optometry screenings for students, faculty, and staff, providing basic eye examinations and professional guidance on vision care.

The initiative aimed to promote awareness of eye health and support the early detection and prevention of vision-related issues. The camp was well-attended and warmly appreciated by the IISER community.



On May 2, 2025, a medical camp was held at IISER Kolkata, organized by Barrackpore Techno Global Hospital. The camp provided general health screenings and basic consultations with physicians and specialists for the institute community.



Services included routine checkups and medical advice, focusing on preventive care and early detection of common health issues. The initiative saw enthusiastic participation and received positive feedback from attendees.

## Study Hub for GW Open Data Workshops at CESSI, IISER Kolkata



The Center of Excellence in Space Sciences India (CESSI) successfully hosted the Gravitational Wave Open Data Workshop 2025 (GWODW) Study Hub at the IISER Kolkata Mohanpur campus. This initiative was organized in coordination with the Gravitational Wave Open Science Center (GWOSC) and several other global study hubs. The workshop was conducted in a hybrid format, attracting enthusiastic participation from approximately 20 offline candidates and 20 online candidates. The participants

comprised primarily postgraduate, PhD students, and undergraduate students. Over the course of the workshop, participants received an intensive crash course in gravitational-wave data analysis, focusing on data from the LIGO, Virgo, and KAGRA observatories. The program featured a series of lectures and interactive hands-on sessions facilitated by mentors from the gravitational wave group at IISER Kolkata.

#### **CESSI** Outreach Activities

- Prof. Dibyendu Nandi delivered two tutorial lectures on the Sun and the life of stars for the International Astronomy Olympiad training program for selected students from around India in May 2025. This training program was organized at the Headquarters of the National Council of Science Museum in coordination with the Birla Industrial and Technological Museum.
- Prof. Dibyendu Nandi delivered an invited tutorial on understanding and exploring the Sun for the YUVIKA outreach program of ISRO for a cohort of school students from around India at the Indian Institute of Remote Sensing (IIRS), Dehradun. He also delivered an Institute Colloquium at IIRS on space weather.

#### CESSI Publication List for the month of May 2025

- "AuroraMag: Twin explorer of asymmetry in aurora and solar wind-magnetosphere coupling", 2025, Bhaskar, A., Pradeep, J., Narendranath, S., Nandy, D., Vaidya, B., Hari, P., Thampi, S. V., Yadav, V. K., Vichare, G., Raghav, A., Chakrabarty, D., Thampi, R. S. and Pant, T. K., Advances in Space Research, Volume 75, Issue 9
- "Test and Calibration of the Solar Ultraviolet Imaging Telescope (SUIT) on Board Aditya-L1", 2025, Sarkar, J. et al. (including Ramaprakash, A. N., Tripathi, D., Ghosh, A., Nandy, D., Sankarasubramanian, K.), Solar Physics, Volume 300, article number 60
- "Gyroscopic precession in Reissner–Nordström spacetime", P Majumder and KR Nayak, General Relativity and Gravitation 57 (4), 63.
- "Sky localization of gravitational waves from eccentric binaries", Souradeep Pal, Phys. Rev. D 111, 104070, 2025.

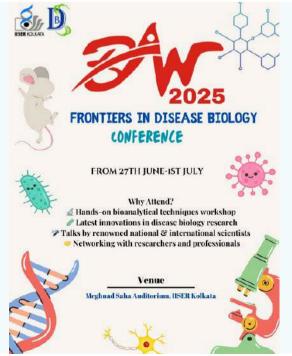
## NCM Advanced Instructional School on Statistical Learning Theory

The Department of Mathematics and Statistics at IISER Kolkata successfully hosted the NCM Advanced Instructional School on Statistical Learning Theory from 12th to 24th May 2025, marking a significant academic milestone.



## **BAW-2025:** Frontiers in Disease Biology Conference

The Department of Biological Sciences, IISER Kolkata, is organizing BAW- 2025: Frontiers in Disease Biology & Hands-on workshop on Preclinical animal mouse models; Translating Basic science to Clinic at IISER KOLKATA from 27th June to 1st July. The conference will consist of didactic lectures by eminent speakers nationally and internationally, and will also consist of Hands-on Training courses for the attendees. More details are available at the following link. https://www.iiserkol.ac.in/~baw/index.html



## **Faculty Achievements**



Dr. Dibyendu Das, Associate Professor in the Department of Chemical Sciences, has been selected as an INSA Associate Fellow for 2025.

We are glad to share that Prof. Supriyo Mitra, Dept. of Earth Sciences, has been selected for INSA Distinguished Lecture Fellow (2025).



## Seminars, Lectures and Colloquia

[Lecture series] Prof. Sushanta Dattagupta (Honorary Professor (INSA) at Sister Nivedita University, Former Director of IISER-Kolkata) -- Spin-Orbit interaction from basic electromagnetism -- its manifestation in solids through Rashba and Dresselhaus forms, connection with Dirac's relativistic quantum mechanics., Date: Monday, May 05, 2025.

[DBS Seminar] Dr. Soumen Barman (Postdoctoral Fellow, Laboratory of Molecular Biology and Immunology (LMBI), National Institute on Aging (NIA), NIH, USA) --Mapping Transcription Factor Footprints at IgH Enhancers Date: Wednesday, May 07, 2025.

[Lecture series] Prof. Sushanta Dattagupta (Honorary Professor (INSA) at Sister Nivedita University, Former Director of IISER-Kolkata) -- What is measured? de Haas -Shubnikov oscillations, Date: Wednesday, May 07, 2025.

[DMS Seminar] Dr Nilasis Chaudhuri (University of Warsaw, Warsaw, Poland) -- Compactness in compressible Navier-Stokes system revisited, Date: Wednesday, May 07, 2025.

[DCS Visitor Seminar] Prof. Samir H. Chikkali (NCL Pune) -- "Waste plastic depolymerization and upcycling", Date: Friday, May 09, 2025.

[DPS Seminar] Dr. Subhasis Sinha (IISER, Kolkata) -- Non equilibrium and non linear dynamics of atom photon interacting system, Date: Wednesday, May 14, 2025. [DCS Visitor's Seminar] Prof. Somobrata Acharya; Prof. Tokeer Ahmad (IACS Kolkata; Jamia Millia Islamia, New Delhi), Date: Thursday, May 15, 2025.

[DPS Seminar] Dr. Samriddhi Sankar Ray (ICTS, TIFR, Bengaluru) -- Solving problems in hydrodynamic turbulence by leaning on ideas from many-body systems Date: Monday, May 19, 2025.

[DCS Seminar] Prof. Prasenjit Mal (NISER Bhubaneswar) -- Supramolecular Photocatalysis, Date: Monday, May 19, 2025.

[DPS Seminar] Prof. Sharvari Nadkarni Ghosh (IIT Kanpur) -- Spherical and Triaxial collapse models to track non-linear cosmological non-linear structure, Date: Monday, May 26, 2025.



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