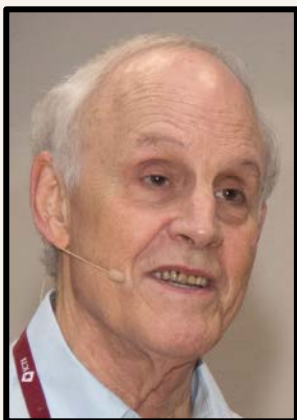


ACTIVITY REPORT

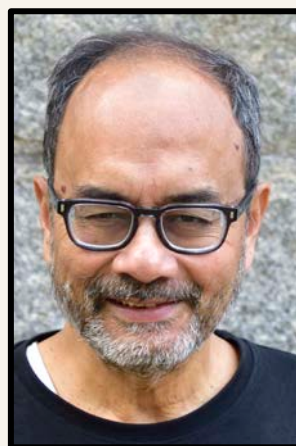
(January-April 2026)





David Gross, Chair of the International Advisory Board, has received the 2026 Special Breakthrough Prize in Fundamental Physics. The prize citation honours him “for a lifetime of groundbreaking contributions to theoretical physics, from the strong force to string theory, and for tireless advocacy for basic science worldwide.”

ICTS-Infosys Madhava Chair Professor and IAB member **Ashoke Sen** has been elected as an International Honorary Member of the American Academy of Arts and Sciences (AAA&S), one of the most prestigious academic institutions in the United States.



I | ICTS ACTIVITIES

Summary of Programming Activities *(For details see following pages)*

Programs/Discussion Meetings held: 12

Academic visitors to ICTS-TIFR: 66

Seminars and colloquia: *(For details see Annexure – A)*

Summary of Research Activities *(For details see Annexure - B)*

Papers published: 61

arXiv submissions: 53

Ia. PROGRAMS

Hard Probes in Non-equilibrium QCD Matter

Organizers: Santosh Kumar Das (IIT Goa), Nihar Ranjan Sahoo (IISER Tirupati) and Sayantan Sharma (IMSc, Chennai) | 16-27 March 2026

Exploring Exoplanets: The Journey to Discover New Frontiers and Habitable Worlds

Organizers: Ravi Kopparappu (NASA Goddard Space Flight Center, USA), Ravinder Kumar Banyal (IIA Bengaluru), Sourav Chatterjee (TIFR Mumbai), Priyanka Chaturvedi (TIFR Mumbai), Gopal Hazra (IIT Kanpur), Jayesh M Goyal (NISER Bhubaneswar), Liton Majumdar (NISER Bhubaneswar), Dibyendu Nandi (IISER Kolkata), Shyama Narendranath (U R Rao Satellite Centre, Bengaluru), Joe P Ninan (TIFR Mumbai), Prashant Pathak (IIT Kanpur), Manoj Puravankara (TIFR Mumbai), Sudha Rajamani (IISER Pune), Prabal Saxena (NASA Goddard Space Flight Center, USA), T. Sivarani (IIA Bengaluru) and Anandmayee Tej (IIST Thiruvananthapuram) | 16-27 March 2026

Geometric Methods in Percolation and Spin Models

Organizers: Subhajit Goswami (TIFR, Mumbai), Piet Lammers (CNRS, Paris, France) and Trishen S. Gunaratnam (TIFR, Mumbai and ICTS-TIFR, Bengaluru) | 2-13 March 2026

Geometric Structures and Stability

Organizers: Oscar Garcia-Prada (ICMAT, Madrid, Spain) and Pranav Pandit (ICTS-TIFR, Bengaluru) | 16-27 February 2026

Geometric Analysis and PDE

Organizers: Ali Hyder (TIFR-CAM, Bengaluru), Sandeep K (TIFR-CAM, Bengaluru), Debabrata Karmakar (TIFR-CAM, Bengaluru) and Yannick Sire (Johns Hopkins University, USA) | 2-13 February 2026



School for Advanced Topics in Particle Physics (SATPP): QCD, Effective Field Theories, and Nuclear Physics

Organizers: Rick Sandeepan Gupta (TIFR, Mumbai), Namit Mahajan (PRL, Ahmedabad), Tuhin S. Roy (TIFR, Mumbai) and Sudhir Vempati (IISc, Bengaluru) | 19-30 January 2026

Generalised Symmetries and Anomalies in Quantum Phases of Matter

Organizers: Subhro Bhattacharjee (ICTS-TIFR, Bengaluru) and Sergej Moroz (Karlstad University, Sweden) | 5-16 January 2026

Ib. DISCUSSION MEETINGS

11th Indian Statistical Physics Community Meeting

Organizers: Ranjini Bandyopadhyay (RRI, Bengaluru), Abhishek Dhar (ICTS-TIFR, Bengaluru), Kavita Jain (JNCASR, Bengaluru), Rahul Pandit (IISc, Bengaluru), Sanjib Sabhapandit (RRI, Bengaluru) and Samridhdi Sankar Ray (ICTS-TIFR, Bengaluru) | 27-29 April 2026

Targeted Questions: Strange Metals

Organizers: Subhro Bhattacharjee (ICTS-TIFR, Bengaluru), Aavishkar Patel (ICTS-TIFR, Bengaluru) and Nandini Trivedi (Ohio State University, USA) | 23-24 April 2026

Gravitational Wave Open Data Workshop

Organizers: Parameswaran Ajith, Ritesh Harshe, Prayush Kumar, Neha Sharma and Priyanka Sinha (ICTS-TIFR, Bengaluru) | 20-22 April 2026

ICTS-Networks Workshop “Challenges in Networks”

Organizers: Siva Athreya (ICTS-TIFR, Bengaluru), Rajat Subhra Hazra (Leiden University, The Netherlands) and Frank den Hollander (Leiden University, The Netherlands) | 6-17 April 2026

Cold-Atom Based Quantum Simulators and Forthcoming Quantum Technology Applications

Organizers: Rosario Gonzalez-Ferez (University of Granada, Spain), Pankaj Kumar Mishra (IIT Guwahati), Tapan Mishra (NISER, Bhubaneswar), Simeon Mistakidis (Missouri University of Science and Technology, USA), Rejish Nath (IISER Pune) and Hossein Sadeghpour (ITAMP, Harvard University, USA) | 30 March-3 April 2026

I. ICTS ACTIVITIES



Ic. LECTURE SERIES

INFOSYS-ICTS CHANDRASEKHAR LECTURES

Optical Lattice Clocks: From Timekeepers to Spies of the Quantum Realm

Ana Maria Rey (JILA, NIST and University of Colorado, Boulder, USA) | 30 March-2 April 2026

INFOSYS-ICTS RAMANUJAN LECTURES

The Different Faces of Higgs Bundles

Nigel Hitchin (University of Oxford, UK) | 17-19 February 2026



Id. VISITS OF SCIENTISTS

The following researchers visited ICTS during January-April 2026.

1. Prashant Singh, Bar-Ilan University, Israel
2. R. Rajesh, Institute of Mathematical Sciences, Chennai
3. Mohit Garg
4. Satyam Sinha
5. Ajay Mohan, TIFR, Mumbai
6. Ankur Renduchintala, BITS, Pilani
7. Shakti Aishvarya, St Joseph's University, Bengaluru
8. Sudeshna Bhattacharjee, University of Bristol, UK
9. Shailesh Chandrasekharan, Duke University, USA
10. Abhishodh Prakash, HRI, Allahabad
11. Vikramaditya Giri, University of Zurich, Switzerland
12. Sanghasri Mukhopadhyay, International Institute of Information Technology, Bengaluru
13. Samraat Pawar, Imperial College London, UK
14. Prateek Sharma, IISc, Bengaluru
15. Tetsuhiro Hatakeyama, Earth-Life Science Institute, Japan
16. Raj Patil, Albert Einstein Institute and Humboldt University, Germany
17. C.S. Bhargav, University of Regensburg, Germany
18. Camille Didier Georges ARON, École Normale Supérieure, France
19. Tooryanand Seetohul, University of Rennes, France
20. Purba Chatterjee, University of Pennsylvania, USA

21. **Ranjini Mondol**, Saha Institute of Nuclear Physics, Kolkata
22. **Vidyanand Nanjundiah**, Centre for Human Genetics, Bengaluru
23. **Joydeep Chakravarty**, McGill University, Canada
24. **Arindam Bhattacharjee**, University of Warsaw, Poland
25. **Subhajit Goswami**, TIFR, Mumbai
26. **Trishen Gunaratnam**, TIFR, Mumbai
27. **Prasad Perlekar**, TIFR, Hyderabad
28. **Gilles Andre Francfort**, Flatiron Institute, USA
29. **Anish Ghosh**, TIFR, Mumbai
30. **Jens Marklof**, University of Bristol, United Kingdom
31. **Aryaman Patel**, Saarland University, Germany
32. **Kumarjit Saha**, Ashoka University, Sonapat
33. **Sergey Alexandrov**, Université Montpellier, France
34. **Abhay Karia**, National Institute for Subatomic Physics, Netherlands
35. **Bittu Kaveri Rajaraman**, Ashoka University, Sonapat
36. **Vivek Borkar**, IIT Bombay, Mumbai
37. **Sunder Sethuraman**, University of Arizona, USA
38. **Dario Poletti**, Singapore University of Technology and Design, Singapore
39. **Arun Ravi**, Technische Universität Wien, Austria
40. **Subham Ghosh**, Asia Pacific Center for Theoretical Physics, S. Korea
41. **Anand Deshpande**, Persistent Systems Limited, deAsra Foundation
42. **Bihan Banerjee**, TIFR, Mumbai
43. **Himanshu Tyagi**, TIFR, Mumbai
44. **Manoj Puravankara**, TIFR, Mumbai
45. **Mitchell Woolley**, Queen Mary University of London, UK
46. **Subroto Mukerjee**, IISc, Bengaluru
47. **Harshit Yadav**, University of Alberta, Canada
48. **Nandini Hazra**, National Centre for Nuclear Research, Poland
49. **R. Shankar**, The Institute of Mathematical Sciences, Chennai
50. **Simon Caron Huot**, McGill University, Canada
51. **Benoit Ducot**, Laboratoire de Physique Théorique et Hautes Energies, France
52. **Raju Venugopalan**, Brookhaven National Laboratory, USA
53. **Aritra Das**, University of Maryland, College Park, USA
54. **Mohan Swaminathan**, TIFR, Mumbai
55. **Junaid Majeed Bhat**, University of Kashmir, Srinagar
56. **Frank Verstraete**, University of Cambridge, UK
57. **Jeevan Kumar**, IISER, Pune
58. **Prakriti Pal Choudhury**, University of Oxford, UK
59. **Arkadev Chattopadhyay**, TIFR, Mumbai
60. **Radhika Achikanath Chirakkara**, University of Toronto, Canada
61. **Manan Bhatia**, Massachusetts Institute of Technology, USA
62. **Anupam Ray**, University of California, Berkeley, USA
63. **Chandramouli Chowdhury**, University of Southampton, UK
64. **Jitendra Kethepalli**, Laboratory of Theoretical Physics and Modelling, CYU, France
65. **Maithreyi Narasimha**, TIFR, Mumbai
66. **Joseph Eliahu Barkai**, Bar Ilan University, Israel

e. NEWS ON GRANTS, AWARDS AND FELLOWSHIPS



ANIRBAN BASAK received the **MATRICES Grant of the Anusandhan National Research Foundation (ANRF)**.



AKSHIT GOYAL, together with Amey Redkar (NCBS) and Veena Anil (UAS-GKVK, Bengaluru), received a **grant from DBT on climate- resilient agriculture**. He was also awarded an **associateship of the Indian Academy of Sciences**.



ANUPAM KUNDU received the **MATRICES Grant of the Anusandhan National Research Foundation (ANRF)**. He also joined the **editorial team of Physical Review E**.



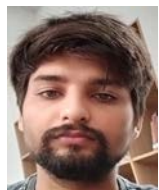
RAGHU MAHAJAN received the **2026 Frontiers of Science Award**. The award will be presented at the International Congress of Basic Sciences (ICBS), scheduled to take place in Beijing in August 2026.



B. SURY was elected a **Fellow of the Indian Mathematical Society (IMS)**. This is only the second year in which the IMS has inducted Fellows in recognition of outstanding contributions to mathematics.



STHITADHI ROY, together with Sumilan Banerjee (Indian Institute of Science, Bengaluru), was awarded an **Advanced Research Grant (ARG) of the Anusandhan National Research Foundation (ANRF)**.



ICTS graduate student RISHABH KAUSHIK has been selected for the prestigious **Kavli Institute for Theoretical Physics (KITP) Graduate Fellowship Program**.



KRITHIN GOWTHAMAN, a former ICTS Long-Term Visiting Students (LTVSP) work with ICTS faculty Dr. **Jim Thomas** has been published in the prestigious [J. of Advances in Modeling Earth Systems](#). He has won the **poster presentation award**, which he presented under the Atmosphere and Ocean Fluid Dynamics (AOFD) series at the Annual Meeting of the American Meteorological Society, held in January 2026 at Houston, Texas, USA.

II ICTS PEOPLE

IIa FACULTY

1. RUKMINI DEY was promoted to Professor H w.e.f January 1, 2026. Dey's research interests are in mathematical physics and geometry.
2. VISHAL VASAN was promoted to Associate Professor G. Vasan is broadly interested in the theoretical and numerical analysis of partial differential equations as well as their applications, particularly inverse problems. Recently, his research interests have been in the intersection of dynamical systems and data science.
3. AKSHIT GOYAL joined ICTS as Reader on 11 March 2026. Goyal's research focuses on the collective dynamics of evolving ecosystems. He was previously a Ramanujan Fellow at ICTS-TIFR.
4. The following scientists joined ICTS as Faculty Associates:
 - a) **Dileep Jatkari** (Chanakya University, Bengaluru; String Theory and Quantum Gravity)
 - b) **Ipsita Mandal** (Shiv Nadar Institute of Eminence, Noida; Quantum Condensed Matter Theory, String Theory)
 - c) **Wen Wei Ho** (National University of Singapore (NUS); Non-Equilibrium Quantum Many-body Physics and Quantum Information Science)
 - d) **Vikas Trivedi** (EMBL, Spain; Biophysics, Developmental and Stem Cell Biology)
 - e) **Nikita Agarwal** (University of Delhi, Delhi; Probability Theory)
 - f) **Poonam Mehta** (JNU, New Delhi; Neutrino Physics, Astroparticle Physics, Theoretical High Energy Physics, Foundational and Geometric Aspects of Quantum Mechanics)
 - g) **Diptiman Sen** (IISc, Bengaluru; Statistical Physics)
 - h) **Vir Bulchandani** (Rice University, USA; Statistical Physics and Condensed Matter Physics)
 - i) **Ajit Kumar Mehta** (Chennai Mathematical Institute, Chennai; Gravitational-wave Physics)
 - j) **Kandaswamy Subramanian** (Ashoka University, Sonapat; Astrophysics and Relativity)

IIb STUDENTS

GRADUATE PROGRAM

1. The new semester began on 1 January 2026. This semester 15 courses (including elective, reading and core) were offered. Please refer to the website for more details:
<https://courses.icts.res.in/course/index.php?categoryid=28>
2. During the period January-April 2026, the graduate students worked on the following projects:

Student Name	Faculty Guide	Project Title
Naman Kapoor	R. Loganayagam	Investigating Fractonic Phases
Rajnish Kumar Jha	Rukmini Dey	Geometric and Deformation Quantization

Ashif Seikh	Abhishek Dhar	Measurement Induced Phase Transition
Swadesh Bhandari	Aavishkar Patel	Yukawa SYK Model Sparsification
Vamshi Krishna Talala	Aavishkar Patel	Strange Metal Behaviour in Boson Dominated Transport
Ashutosh Prajapati	Shashi Thutupalli	Self-Reproducing Machines
Anjali Bhattar	P.Ajith	-
Ezhilmathi V	Vijaykumar Krishnamurthy	Interaction Between Active Surface Waves and Cytoplasmic Streaming
Anoop T	Sarthak Chandra	Path Integration in Continuous Attractor Networks
Anjana P	Sarthak Chandra	Content Addressable Memory models
Sri Krithika	Suvrat Raju	Cosmological Bootstrap
Saiba Ayoub	Pranav Pandit	Dynamical Symmetries and Anamolies
Kanak Sorari	Abhishek Dhar	Cart Pole Problem with Reinforcement Learning
Shreyash Bhattacharjee	Sarthak Chandra	The Effect of Motifs, Especially Triangles on a Network of Coupled Oscillators

3. The following students successfully defended their thesis during January-April 2026:

Student Name	Batch	Research Advisor	Date of Defense
Sparsh Gupta	2020 PhD	Manas Kulkarni	20 January 2026
Ankush Chaubey	2019 IPhD	Subhro Bhattacharjee	6 February 2026
Mukesh Singh Raghav	2014 IPhD	Rama Govindarajan	20 March 2026
Aditya Singh Rajput	2019 IPhD	Vijaykumar Krishnamurthy	10 April 2026

4. The following students submitted their synopsis during January-April 2026:

Student Name	Batch	Research Advisor	Date of Submission
Umesh Kumar	2020 PhD	Abhishek Dhar	13 February 2026
Jigwasa Watwani	2020 PhD	Vijaykumar Krishnamurthy	13 February 2026
Soumav Kapoor	2018 IPhD	Rama Govindarajan	15 April 2026

5. Graduate Studies Admissions through TIFR GS 2026 and LTVSP 2025:
 - a) **Physics Program:** The interview for the Physics program was held during 23-25 March 2026. Five offers (3 PhD and 2 IPhDs) were made via TIFR GS 2026 and two offers (PhD) were made through LTVSP Program 2025.
 - b) **Physics of Life (PoL) Program:** The interview for the Physics of Life program was held on 26 March 2025, and two offers (PhD) were made.
6. Subsequent affiliation of graduate students from ICTS:
 - a) **Sparsh Gupta** - Post Doctoral Fellow, University of the Bundeswehr Munich, Germany
 - b) **Ankush Chaubey** - Post Doctoral Fellow, Karlstad University system, Sweden
 - c) **Mukesh Singh Raghav** - Advisory Associate Solution Advisor in Deloitte
 - d) **Aditya Singh Rajput** - Post Doctoral Fellow, The Francis Crick Institute Limited, UK
7. Three students from Physics of Life Program (2023 batch) were transferred to NCBS on 1 January 2026.
8. Students who registered for PhD during January-April 2026:
 - a) **Rukmani R** (2023 PhD batch, advisor: Akshit Goyal)
 - b) **Devanshi Parashar** (2022 Integrated PhD batch, advisor: Abhishek Dhar)
 - c) **Ratul Thakur** (2023 Integrated PhD batch, advisor: Sthitadhi Roy)

POSTDOCTORAL PROGRAM

1. The hiring process for the “ICTS Postdoctoral Program 2026 Fall cycle” has been completed. No offers were made.
<https://www.icts.res.in/academic/postdoctoral-fellowships>
2. Seven conditional offers were made in February 2026 to candidates from the ICTS Postdoctoral Program (Fall 2026 cycle). These offers include ICTS’s endorsement of their applications to the NPDF and a commitment to host them during the NPDF tenure, should they be selected.

Name	Research Group	Faculty Host	Current Designation and Affiliation
Sandipan Manna	Statistical Physics and Condensed Matter	Sthitadhi Roy	PhD Scholar, IISER, Pune
Sakil Khan	Statistical Physics and Condensed Matter	Manas Kulkarni	PhD Scholar, IISER, Pune
Ritwick Sarkar	Statistical Physics and Condensed Matter	Anupam Kundu	PhD Scholar, S.N. Bose National Centre for Basic Sciences, Kolkata
Gopal Prakash	Statistical Physics and Condensed Matter	Subhro Bhattacharjee	PhD Scholar, The Institute of Mathematical Sciences, Chennai

Praful Kumar	Fluid Dynamics and Turbulence	Rama Govindarajan	Institute Postdoctoral Fellow, Indian Institute of Technology Bombay
Joaquim P Jossy	Fluid Dynamics and Turbulence	Rama Govindarajan	PhD Scholar, Indian Institute of Technology Delhi
Naven Narayanan Venkatanarayanan	Biophysics	Akshit Goyal	TIFR Fellow, National Centre for Biological Sciences

3. Five candidates have been selected for CALIBRE AI in Biology Postdoctoral Fellowship Program: Akshay S H, Shreyank Goel, Naven Naryanan, Swarnaditya Hazra and Maanasa Natrajan.
4. Five candidates (offers made during the 2026 Summer Cycle) have joined ICTS. They are Amal Manoharan, Lijin J., Nimisha Pahuja, Santana Majee and Ramananda Santra.
5. Apart from the five above, Sounak Biswas has joined Statistical Physics and Condensed Matter group as a Swarnajayanti Postdoctoral Researcher and Thota Srinivas has joined as a Postdoctoral Researcher to work with Jim Thomas (under a DRDO funded project).
6. Subsequent affiliations of postdoctoral fellows who finished their tenure at ICTS-TIFR between January-April 2026:
 - a) Debojyoti Kundu - Acquisitions Editor, Springer Nature, Pune
 - b) Rajes Ghosh - Fulbright Postdoc at Johns Hopkins University Baltimore, MD, USA
 - c) Prasad R - Postdoctoral Fellow at IIT Gandhinagar
7. Joseph Samuel has been selected for the post “Project Associate-I” to work with Rama Govindarajan under a project titled “*Understanding Dusty Turbulent Flows in the Atmosphere and the Ocean,*” supported by ANRF.

VISITING STUDENTS PROGRAM

1. The selection process for the ICTS Long Term Visiting Students Program 2026 was completed and the results are available [here](#)
2. The selection process for the ICTS S.N. Bhatt Memorial Excellence Fellowship Program 2026 was completed and the results are available [here](#)

ACADEMIC LECTURE SERIES

Multi-particle Production in QCD and Gravity at High Energies: From Amplitudes to Shockwaves | Raju Venugopalan (Brookhaven National Lab, USA) | 20 January-6 February 2026

From Microscopic Dynamics to Hydrodynamics | Abhishek Dhar (ICTS-TIFR, Bengaluru) | 19 January-2 February 2026

ICTS IN HOUSE 2026

The ICTS In-house 2026, an exclusive three-day event to exchange ideas and research topics amongst members of ICTS, was held on 6-8 April 2026.

III

OUTREACH

KAAPI WITH KURIOSITY

How Networks Shape Our Lives

Frank den Hollander (Leiden University, The Netherlands) | 11 April 2026

The Search for another Earth

Ravi Kumar Kopparapu (NASA) | 22 March 2026

What Does It Mean to Be AI-Literate

Arvind Rao (University of Michigan, USA) | 22 February 2026

When Fluids Misbehave

Samridhi Sankar Ray (ICTS-TIFR, Bengaluru) | 31 January 2026



ABDUS SALAM MEMORIAL LECTURE

Joining Forces: To Unify Nature and to Unite the World | Atish Dabholkar

(The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste & Assistant Director General at UNESCO) | 23 February 2026



VIGYAN ADDA

LIGO-India: Expanding the Network of ground based Interferometric Gravitational Wave Detectors.

Sendhil Raja S (Raja Ramanna Centre for Advanced Technology, Indore) | 9 April 2026

Ultracold Atoms as a Future Quantum Technology

Dan Stamper-Kurn (University of California Berkeley, USA) | 31 March 2026



MATHS CIRCLE INDIA

ICTS conducted five online Maths Circle India sessions during January-April 2026.

Session 94

Conducted by: Aarav Goel, Abhishek Bhattacharjee | **Interactive session:** 17 April 2026

Session 93

Conducted by: Aarav Goel, Abhishek Bhattacharjee | **Interactive session:** 3 April 2026

Session 92

Conducted by: Anhad Jha, Turaga Venkata Hanumanta Prathamesh | **Interactive session:** 20 March 2026

Session 91

Conducted by: Anhad Jha, Disha Kuzhively, Turaga Venkata Hanumanta Prathamesh | **Interactive session:** 23 January 2026

Session 90

Conducted by: Ajit Bhand | **Interactive session:** 12 January 2026

ICTS-RRI MATHS CIRCLE

During January-April 2026, five maths circle sessions were held at the Raman Research Institute, Bengaluru.

Session 59

Conducted by: Jaikumar Radhakrishnan | **Interactive session:** 25 April 2026

Session 58

Conducted by: Jaikumar Radhakrishnan | **Interactive session:** 11 April 2026

Session 57

Conducted by: Abhishek Dhar | Interactive session: 14 February 2026

Session 56

Conducted by: Yamuna Natraj | Interactive session: 24 January 2026

Session 55

Conducted by: Yamuna Natraj | Interactive session: 10 January 2026

PRISM

The life of stars and the latest human journey to the moon!

B R Guruprasad (Jawaharlal Nehru Planetarium, Bengaluru) and Sujatha S (MPBIFR, Bengaluru) | 25 April 2026

PriSM 9: Getting Personal with Rainbows

Kaushik Basu (University of California, Berkeley, USA) | 21 February 2026

NEW INITIATIVE: BANGALORE MATHEMATICS TEACHERS CIRCLE (BMTC)

The BMTC is a space to nurture a problem-solving and inquiry-driven mathematical culture among school teachers. The programme is conducted in collaboration with [Maths Circle India](#), [Azim Premji University](#), the [Mathematics Teachers' Association \(India\)](#), and [St. Joseph's University](#). The initiative has also benefited from consultations with coordinators of similar programmes at [IIT Palakkad](#) and [HBCSE, Mumbai](#). During January-April 2026, two BMTC sessions were held at the St. Joseph's University, Bengaluru

BMTC - 2

Conducted by: Ramanujam R (Azim Premji University, Bengaluru), Mohan R (Azim Premji University, Bengaluru), Vignesh Nadarajan (Azim Premji University, Bengaluru), Disha Kuzhively (ICTS-TIFR, Bengaluru), Kanchana Suryakumar (Mathematics Teachers' Association (India)) | Interactive session: 04 April 2026 | St. Joseph's University, Bengaluru

BMTC Pilot Session

Conducted by: Shantha Bhushan (Azim Premji University, Bengaluru), Vignesh Nadarajan (Azim Premji University, Bengaluru), Disha Kuzhively (ICTS-TIFR, Bengaluru), Kanchana Suryakumar (Mathematics Teachers' Association (India)), Hema Gowda (Mathematics Teachers' Association (India)) | Interactive session: 31 January 2026 | St. Joseph's University, Bengaluru

OTHER EVENTS

ICTS Open Day 2026

15 February 2026 | Foyer of Chandrasekhar Auditorium, ICTS-TIFR
ICTS welcomed the public to an engaging Science Festival on campus. Students and faculty showcased their research through interactive exhibits, offering

visitors a glimpse into the institute's diverse scientific work. There were more than 400 visitors on campus for Open Day.

Women of Mathematics from Around the World

29 December 2025-2 January 2026 | Foyer Area, Chandrasekhar Auditorium, ICTS-TIFR

Women of Mathematics from around the World was a photography exhibition featuring portraits of 20 women mathematicians and theoretical physicists from across the globe. The photographs were by Noel Tovia Matoff.

ANNEXURE - A

The following are the details of seminars and colloquia during the period January-April 2026:

Studies on Vortical Flows: Geometrical Effects and Inertial Particle Dynamics

| Saumav Kapoor (ICTS-TIFR, Bengaluru) | 15 April 2026

Dynamics of Extreme Wave-activity Events in a Warming Climate

| Pragallva Barpanda (Geophysical Institute, University of Bergen, Norway) | 10 April 2026

Physics of Cytokinesis

| Aditya Singh Rajput (ICTS-TIFR, Bengaluru) | 10 April 2026

Thin-Film Reduced Models: What Works, What Breaks, and What's Next

| Sanghasri Mukhopadhyay (International Institute of Information Technology, Bengaluru) | 10 April 2026

Intermittent Nash Iterations in PDEs

| Vikramaditya Giri (University of Zurich, Switzerland) | 9 April 2026

Symmetry-enforced Quantum Correlations in Noisy and Disordered Quantum Matter

| Subhayan Sahu (Perimeter Institute, Canada) | 6 April 2026

Limit Shapes Beyond Classical Tilings

| Terrence George (Massachusetts Institute of Technology, USA) | 2 April 2026

Geometry of Lagrangian Tangles

| Ipsita Datta (ETH Zurich, Switzerland) | 1 April 2026

Stability Studies of Inviscid Shallow Water Flows on a Sphere

| Mukesh Singh Raghav (ICTS-TIFR, Bengaluru) | 30 March 2026

Structural Complementarity Maximizes Feasibility and Stability in Microbial Community Coalescence

| Samraat Pawar (Imperial College London, UK) | 27 March 2026

ETH-monotonicity and the Black Hole Singularity

| Nilakash Sorokhaibam (Tezpur University, Tezpur) | 18 March 2026

Reduced Phase Space Quantization of 3D Gravity: Maximal Slicing and Beyond

| Anurag Kaushal (ICTS-TIFR, Bengaluru) | 16 March 2026

Physics of Turbulent Radiative Mixing Layers

| Prateek Sharma (Indian Institute of Science, Bengaluru) | 13 March 2026

Precision Gravity: Gravitational Waves using Feynman Diagrams

| Raj Patil (Albert Einstein Institute and Humboldt University, Germany) | 12 March 2026

Quantum Evolution of Charged de Sitter Black Holes

| Arindam Bhattacharjee (University of Warsaw, Poland) | 11 March 2026

Self-Organization Driven by Biochemically Enhanced Diffusion: Active Thermodynamic Force and Maxwell's Demon | Tetsuhiro Hatakeyama (Earth-Life Science Institute, Japan) | 11 March 2026

Landau Damping Around Inhomogeneous Stationary States of the Vlasov-HMF Model | Tooryanand Seetohul (University of Rennes, France) | 10 March 2026

Holomorphic Modular Bootstrap of RCFTs | Akhila Sadanandan (Indian Institute of Technology Madras, Chennai) | 9 March 2026

Learning Under Constraints: From Loopy Vascular Networks to Continual Learning Machines | Purba Chatterjee (University of Pennsylvania, USA) | 9 March 2026

Dark Secrets of Baryons: Illuminating Dark Matter-Baryon Interactions with JWST | Ranjini Mondol (Saha Institute of Nuclear Physics, Kolkata) | 6 March 2026

Vortex Dynamics and Regime Transitions in Rotating Convection | Veeraraghavan Kannan (Carnegie Institution for Science, USA) | 6 March 2026

Odd Viscosity via Shear Response of Chiral Films | Brato Chakrabarti (ICTS-TIFR, Bengaluru) | 4 March 2026

Imprint of the Black Hole Interior on Thermal Four-point Correlators | Joydeep Chakravarty (McGill University, Canada) | 3 March 2026

QCD Flux Tube Model Signals in Heavy Ion Collisions | Apoorva Patel (ICTS-TIFR, Bengaluru) | 2 March 2026

The Jammed Phase of Infinitely Persistent Active Matter | Mahesh Chandrasekhar Gandikota (ICTS-TIFR, Bengaluru) | 27 February 2026

Energy Transfer in Variable Density Flows: Filtering and Point-splitting Approach | Prasad Perlekar (TIFR, Hyderabad) | 26 February 2026

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Abhay Karia (National Institute for Subatomic Physics, The Netherlands) | 9 February 2026

From Finite Size Baths to Steady Currents and Measurement-induced Phase Transition

Dario Poletti (Singapore University of Technology and Design, Singapore) | 6 February 2026

Interplay of Microscopic symmetries and Entanglement in Effective Theories of Correlated Quantum Matter

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Harshit Yadav (University of Alberta, Canada) | 23 January 2026

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Suyog Garg (University of Tokyo, Japan) | 22 January 2026

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Umesh Kumar (ICTS-TIFR, Bengaluru) | 21 January 2026

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One hundred years of Quantum Physics | Frank Verstraete (University of Cambridge, UK) | 13 January 2026

ANNEXURE - B

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43. *Nutrient Availability Shapes the Diversity and Structure of Microbial Communities*, Martina Dal Bell, Yizhou Liu, **Akshat Goyal**, Jeff Gore. bioRxiv <https://doi.org/10.64898/2026.04.14.718562>
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45. *Generating Pairwise Entanglement in Periodically Driven Quantum Spin Chains with Stochastic Resetting*, Sinchan Ghosh, **Manas Kulkarni**, K. Sengupta, Satya N. Majumdar. arXiv:2604.19333
46. *Including Higher-order Modes in a Quadrupolar Eccentric Numerical Relativity Surrogate using Universal Eccentric Modulation Functions*, Tousif Islam, Adhrit Ravichandran, Peter James Nee, Scott E. Field, Vijay Varma, Harald P. Pfeiffer, Andrea Ceja, Noora Ghadiri, Lawrence E. Kidder, **Prayush Kumar**, Marlo Morales, Abhishek Ravishankar, Antoni Ramos-Buades, Katie Rink, Hannes R. Ruter, Mark A. Scheel, Md Arif Shaikh, Daniel Tellez. arXiv:2604.17868
47. *Could the High-mass Black Holes from Gravitational-wave Observations be Explained by Lensing?* **Ritesh Harshe**, **R. Prasad**, **Parameswaran Ajith**. arXiv:2604.14247
48. *GW190711_030756 and GW200114_020818: Astrophysical Interpretation of Two Asymmetric Binary Black Hole Mergers in the IAS Catalog*, Tousif Islam, **Tejaswi Venumadhav**, Digvijay Wadekar, Ajit Kumar Mehta, Javier Roulet, Jonathan Mushkin, Mark Ho-Yeuk Cheung, Barak Zackay, Matias Zaldarriaga. arXiv:2604.07388
49. *Measurement and Feedback-driven Adaptive Dynamics in the Classical and Quantum Kicked Top*, **Mahaveer Prasad**, Ahana Chakraborty, Thomas Iadecola, **Manas Kulkarni**, J. H. Pixley, Sriram Ganeshan, Justin H. Wilson. arXiv:2604.19874
50. *Unified Hydrodynamic Analogue of Aharonov-Bohm and Lense-Thirring Effects*, Aditya Singh, **Joseph Samuel**, Chien-chia Liu, Luiza Angheluta, Andrés Concha, Mahesh Bandi. arXiv:2604.21543
51. *Viscous Settling of Bravais Unit-Cells*, Sebastian Bürger, Harshit Joshi, S Ganga Prasath, Rahul Chajwa, **Rama Govindarajan**. arXiv:2604.26189

52. *Maxfaces with Infinitely Many Swallowtails*, **Anu Dhochak**. arXiv:2604.17520
53. *Conductance Fluctuations in Random Resistor Networks with Hyperuniform Disorder*, **Bikram Pal**. arXiv:2604.24789

Meetings/Conferences/Proceedings – 1

1. *A New Mathematical Model that can Generate Realistic Submesoscale Turbulent Flows*, **Krithin Gowthaman (presenter), Jim Thomas**. 106th Annual Meeting of the American Meteorological Society, in Jan 2026 under the Atmosphere and Ocean Fluid Dynamics (AOFD) series, 25-29 Jan. 2026, Houston, Texas, USA.
<https://ams.confex.com/ams/106ANNUAL/meetingapp.cgi/Paper/470266>, Krithin Gowthaman won the poster presentation award.

Consortium – 8

1. *Deep Search for Joint Sources of Gravitational Waves and High-Energy Neutrinos with IceCube During the Third Observing Run of LIGO and Virgo*, The IceCube Collaboration, R. Abbasi, M. Ackermann, et. al. arXiv:2601.07595 Astrophysical Journal, submitted (2025)
2. *Black Hole Spectroscopy and Tests of General Relativity with GW250114*, The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration. Phys. Rev. Lett. 136 (04), 041403 (2026)
3. *All-sky Searches for Continuous Gravitational Waves from Isolated Neutron Stars in the Data from the First Part of the Fourth LIGO-Virgo-KAGRA Observing Run*, The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration, A. G. Abac, et. al. arXiv:2603.14168 Physical Review D, submitted (2026)
4. *GWTC-4.0: Tests of General Relativity. I. Overview and General Tests*, The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration, A. G. Abac, et al. arXiv:2603.19019 Astrophysical Journal Letters, submitted (2026)
5. *GWTC-4.0: Tests of General Relativity. II. Parameterized Tests*, The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration, A. G. Abac, et. al. arXiv:2603.19020 Astrophysical Journal Letters, submitted (2026)
6. *GWTC-4.0: Tests of General Relativity. III. Tests of the Remnants*, The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration, A. G. Abac, et al. arXiv:2603.19021 Astrophysical Journal Letters, submitted (2026)
7. *Narrowband Searches for Continuous Gravitational Waves from Known Pulsars in the First Two Parts of the Fourth LIGO-Virgo-KAGRA Observing Run*, The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration, A. G. Abac, et al. arXiv:2603.25938 Astrophysical Journal, submitted (2026)
8. *Searches for Continuous Gravitational Waves from Supernova Remnants in the first part of the LIGO-Virgo-KAGRA Fourth Observing run*, The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration, A. G. Abac, et al. arXiv:2603.25808