

ACTIVITY REPORT

(January-April 2025)



Former ISRO chairman and member of the TIFR Council, Dr. KRISHNASWAMY KASTURIRANGAN, passed away on April 25, 2025. He was 84. Dr. Kasturirangan played a pivotal role in the establishment of ICTS-TIFR, continuing his unwavering support and encouragement till the end. Dr Kasturirangan was also one of the chief architects of the National Education Policy (NEP) 2020. ICTS-TIFR had the privilege of hosting Dr Kasturirangan and the other members of the NEP committee at the campus for brainstorming sessions on the policy. He visited ICTS-TIFR on other occasions, including to deliver an Abdus Salam Memorial Lecture titled “The Early Indian Space Endeavour: An Anecdotal Account.”



ICTS-TIFR has created the Sujata & Tatineni Prem Kumar Travel Grant Fund. A Memorandum of Understanding (MoU) was signed with Tatineni Prem Kumar and Sujata Kumar, formalizing an endowment with a corpus of Rs 4.5 crores (USD 0.5 million). This fund will be dedicated to supporting students and postdoctoral researchers at ICTS by providing financial assistance for international travel. The grant will facilitate participation in conferences, workshops, and collaborative research engagements, fostering global academic interaction and the exchange of ideas.

I | ICTS ACTIVITIES

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

Programs/Discussion Meetings held: 12

Academic visitors to ICTS-TIFR: 67

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

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

Papers published: 51

arXiv submissions: 36

Ia. PROGRAMS

ICTS Workshop on HDXs and Codes

Organizers: Irit Dinur (Weizmann Institute of Science Rehovot, Israel), Venkat Guruswami (University of California, Berkeley) and Prahladh Harsha (TIFR, Mumbai) | 28 April-9 May 2025

Radio Cosmology and Continuum Observations in the SKA Era: A Synergic View

Organizers: Suman Majumdar (IIT Indore), Abhirup Datta (IIT Indore), Ilian T Iliev (University of Sussex, UK), Mark T Sargent (ISSI, Switzerland), Dharam Vir Lal (NCRA-TIFR, Pune), Nirupam Roy (IISc, Bengaluru), Tirthankar Roy Choudhury (NCRA-TIFR, Pune), Girish Kulkarni (TIFR, Mumbai), Narendra Nath Patra (IIT Indore) and Saurabh Singh (RRI, Bengaluru) | 7-18 April 2025

Beyond the Horizon: Testing the Black Hole Paradigm

Organizers: Sumanta Chakraborty (IACS, Kolkata) and Sudipta Sarkar (IIT Gandhinagar) | 24 March-4 April 2025

Decisions, Games, and Evolution

Organizers: Sagar Chakraborty (IIT Kanpur), Vishwesha Guttal (IISc, Bengaluru), Sandeep Krishna (NCBS, Bengaluru) and Supratim Sengupta (IISER Kolkata) | 10-21 March 2025

New Trends in Teichmüller Theory

Organizers: Krishnendu Gongopadhyay (IISER Mohali), Subhojoy Gupta (IISc, Bengaluru), Kenichi Ohshika (Gakushuin University, Japan) and Athanase Papadopoulos (CNRS and University of Strasbourg, France) | 24 February - 7 March 2025

Positive Geometry in Scattering Amplitudes and Cosmological Correlators

Organizers: Nima Arkani-Hamed (IAS Princeton, USA), Johannes Henn (MPI Physics, Germany), Suvarat Raju (ICTS-TIFR, Bengaluru) and Jaroslav Trnka (UC Davis, USA) | 10-21 February 2025

Quantum Trajectories

Organizers: Michel Bauer (IPhT, CEA Saclay, France), Cedric Bernardin (National Research University Higher School of Economics, Moscow, Russia), Raphael Chetrite (Université Côte d'Azur, Nice, France) and Abhishek Dhar (ICTS-TIFR, Bengaluru) | 20 January-7 February 2025

ICTP-ICTS Winter School on Quantitative Systems Biology

Organizers: Stefano Allesina (University of Chicago, USA), Akshit Goyal (ICTS-TIFR, Bengaluru), Jacopo Grilli (ICTP, Italy) and Meghna Krishnadas (NCBS, Bengaluru) | 6-17 January 2025



Ib. DISCUSSION MEETINGS

Lean for the Curious Mathematician

Organizers: Siddhartha Gadgil (IISc, Bengaluru), Ashvni Narayanan (University of Sydney, Australia) and T. V. H. Prathamesh (Krea University, Andhra Pradesh) | 24-26 April 2025

10th 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 Samridhi Sankar Ray (ICTS-TIFR, Bengaluru) | 23-25 April 2025

Discussion Meeting on Neuroscience, Data Science and Dynamics

Organizers: Amit Apte (IISER, Pune), Neelima Gupte (IIT Madras, Chennai) and Ramakrishna Ramaswamy (IIT Delhi) | 21-23 April 2025

A Hundred Years of Quantum Mechanics

Organizers: Abhishek Dhar and Rajesh Gopakumar (ICTS-TIFR, Bengaluru) | 13-17 January 2025



Ic. LECTURE SERIES

DISTINGUISHED LECTURES

Are We Living in the Matrix? What Quantum Experiments Reveal About the World and Our Powers in it, and What the Future May Hold

Howard Wiseman (Griffith University, Brisbane, Australia) | 27 January 2025

TURING LECTURES

Dynamical Systems and Artificial Intelligence Applied to Data Modelling in Biological Problems

Gabriel Mindlin (University of Buenos Aires, Argentina) | 21 April 2025

Id. VISITS OF SCIENTISTS

The following researchers visited ICTS during January-April 2025.

1. **Sunidhi Sen**, Shiv Nadar University, Delhi
2. **Izumi Takimoto Schmiegelow**, Gran Sasso Science Institute, Italy
3. **Vidyanand Nanjundiah**, Centre for Human Genetics, Bengaluru
4. **Arjun Bagchi**, IIT Kanpur
5. **Alok Laddha**, Chennai Mathematical Institute, Chennai
6. **Mahendra Verma**, IIT Kanpur
7. **Katha Ganguly**, Indian Institute of Science and Research (IISER), Pune
8. **Bijay Kumar Agarwalla**, IISER, Pune
9. **Manoj Kumar**, NISER, Bhubaneswar
10. **Elisa Storelli**, University of the Arts Bremen, Germany
11. **Shailesh Chandrasekharan**, Duke University, USA
12. **Vishnu Prasath Thulasiraman**, IISc, Bengaluru
13. **Navin Sridhar**, Stanford University, United States
14. **Rajath Radhakrishnan**, ICTP, Italy
15. **Sumiran Pujari**, IIT Bombay, Mumbai
16. **Amit Kumar**, Louisiana State University, USA
17. **Trishen Satyendran Gunaratnam**, TIFR-Mumbai
18. **Nilay Kundu**, IIT Kanpur
19. **Junaid Majeed Bhat**, University of Ljubljana, Slovenia
20. **Bharat Vishnu Ratra**, Kansas State University, USA
21. **R. Shankar**, Institute of Mathematical Sciences, Chennai
22. **Chandra Kant Mishra**, IIT Madras, Chennai
23. **Aninda Sinha**, IISc, Bengaluru
24. **Uddalok Sarkar**, Indian Statistical Institute, Kolkata
25. **Nabamita Banerjee**, IISER, Bhopal
26. **Venkata Sai Saketh Muddu**, Max Planck Institute, Germany
27. **Sayantani Bera**, Aix-Marseille University, France
28. **Karamveer Kaur**, Technion-Israel Institute of Technology
29. **Sumilan Banerjee**, IISc, Bengaluru
30. **Chaya Ganesh**, IISc, Bengaluru
31. **Arvind Shekar**, University of Southampton, England
32. **Valakunja Nagaraja**, IISc, Bengaluru
33. **David Edwin Logan**, University of Oxford, UK

34. **Arnab Rudra**, IISER, Bhopal
35. **Nathan Seiberg**, Institute of Advanced Study, Princeton, USA
36. **Sanjay Moudgalya**, Technical University of Munich, Germany
37. **Amit Deshpande**, Microsoft Research
38. **Prantika Bhowmik**, IISc, Bengaluru
39. **Lokesh Tater**, IISER, Pune
40. **Ritabrata Bhattacharya**, Utah State University, USA
41. **Ankit Aggarwal**, TU Wien Vienna, Austria
42. **Jamila Shelley Rowland-Chandler**, University College London, UK
43. **Kaustav Kashyap Das**, California Institute of Technology, USA
44. **Sergej Moroz**, Karlstad University, Sweden
45. **Ajit Kumar Mehta**, University of California, Santa Barbara, USA
46. **R. Rajesh**, Institute of Mathematical Sciences, Chennai
47. **Tosif Ahamed**, HHMI's Janelia Research Campus, USA
48. **Pinaki Chaudhuri**, Institute of Mathematical Sciences, Chennai
49. **Rajeev Erramilli**, Institut des Hautes Études Scientifiques, France
50. **Aavishkar Patel**, Flatiron Institute, New York, USA
51. **Sandipan Manna**, IISER, Pune
52. **Anindita Maiti**, Perimeter Institute for Theoretical Physics, Canada
53. **Prajwal Padmanabha**, University of Lausanne, Switzerland
54. **Vinay Ramadas**, Eindhoven University of Technology, Netherlands
55. **Sarath Yasodharan**, IIT Bombay, Mumbai
56. **Adhip Agarwala**, IIT Kanpur
57. **Bulbul Chakraborty**, Brandeis University, USA
58. **Aditya Aiyer**, Lehigh University, USA
59. **Shiroman Prakash**, Dayalbagh Educational Institute, Agra
60. **Yasir Iqbal**, IIT Madras, Chennai
61. **Vijay Rajagopal**, University of Melbourne, Australia
62. **Gaurav Chaudhary**, University of Cambridge, UK
63. **R. Shankar**, Institute of Mathematical Sciences, Chennai
64. **Manan Bhatia**, Massachusetts Institute of Technology, USA
65. **Mahesh Balasubramanian**, Queen Mary University of London, UK
66. **A. P. Balachandran**, Syracuse University, USA
67. **Devadatta Hegde**, Brandeis University, USA

e. NEWS ON GRANTS, AWARDS AND FELLOWSHIPS



RIDDHIPRATIM BASU was elected as **Fellow of the Indian Academy of Sciences**.



BRATO CHAKRABORTI was awarded the **ANRF, PM Early Career Research Grant**. The Anusandhan National Research Foundation (ANRF) is given to early career researchers, who are playing a crucial role in the country's scientific and technological advancement.



SUVRAT RAJU was elected as **Fellow of the Indian Academy of Sciences**.



Former ICTS student ADITYA VIJAYKUMAR received the **2024 Justice Oak Award for Outstanding Thesis in Astronomy** by the Astronomical Society of India and the **2024 V.V. Narlikar Best Thesis Award** by the Indian Association for General Relativity and Gravitation.



ICTS student SOUVIK JANA received an **Honorable Mention in the Young Astronomer Award for the Best Publication** by the Astronomical Society of India

II

ICTS PEOPLE

IIa FACULTY

1. SARTHAK CHANDRA (currently at Massachusetts Institute of Technology, USA) will join the ICTS-TIFR faculty in August 2025. Sarthak Chandra's research interests lie in Physical Biology - Theoretical Neuroscience, Computational Neuroscience, Complex Systems and Nonlinear Dynamics.
2. PRANAV PANDIT has received his tenure. Pranav Pandit works on Algebraic Geometry and Mathematical Physics.
3. The following scientists have joined ICTS-TIFR as Faculty Associates:
TRISHEN GUNARATNAM (TIFR, Mumbai)
SHOBHANA NARASIMHAN (JNC SAR, Bengaluru)
BHASWAR BHATTACHARYA (University of Pennsylvania, USA)
JEDEDIAH H. PIXLEY (Rutgers University, USA)
SREEJITH GJ (IISER Pune)

IIb STUDENTS

GRADUATE PROGRAM

1. The following 5 students successfully defended their thesis.
 - a) **Bhanu Kiran S** (Advisor: Pranav Pandit) on 5 March 2025.
 - b) **Divya Jaganathan** (Advisor: Rama Govindarajan) on 28 February 2025.
 - c) **Saikat Santra** (Int. PhD 2018, Advisor: Anupam Kundu) on 27 January 2025.
 - d) **Mahaveer Prasad** (PhD 2019, Advisor: Manas Kulkarni) on 23 January 2025.
 - e) **Shashank Kumar Roy** (Int. PhD 2017, Advisor: Samriddhi Sankar Ray) on 20 January 2025.
2. The following 5 students submitted their thesis:
 - a) **Aditya Kumar Sharma** (Int. PhD 2018, Advisor: P. Ajith) on 14 April 2025.
 - b) **Anup Kumar** (PhD 2019, Advisor: Rama Govindarajan) on 5 April 2025.
 - c) **Sahil Kumar Singh** (PhD 2020, Advisor: Abhishek Dhar) on 27 March 2025.
 - d) **Saurav Pandey** (Int. PhD 2018, Advisor: Abhishek Dhar) on 5 February 2025.
 - e) **Souvik Jana** (PhD 2019, Advisor: P. Ajith) on 4 February 2025.
3. The following students submitted their synopsis:
 - a) **Uddeepa Deka** (Advisor: P. Ajith)
 - b) **Omkar Sanjay Shetye** (Advisor: R. Loganayagam)
 - c) **Shivam Kumar Sharma** (Advisor: R. Loganayagam)
4. **Saptarshi Mandal** was registered for PhD

5. Graduate Studies Admissions 2025

The Admission for the Graduate Studies Program below are in progress:

- Physics and Physics of Life through the TIFR GS stream. The interview for the Graduate Studies in Physics program was held on the 10-14 March 2025 and nine offers were made. The interview for the Graduate Studies in Physics of Life program was held on the 2-3 April 2025, and four offers were made.
- Mathematics through the TIFR GS and CSIR-UGC NET stream. The interview for the Graduate Studies program in Mathematics was held on 4 April 2025 and one offer was made.
- Applied and Computational Mathematics through the TIFR GS, GATE, and CSIR-UGC NET streams. The interview for the Graduate Studies in Applied and Computational Mathematics program will be held on 30 April 2025 & 1 May 2025.

POSTDOCTORAL PROGRAM

- The Fall 2025 recruitment cycle is complete. The following offers were made:

Name	Research Group	Current Affiliation	Current Designation
Samik Mitra (joined)	Astrophysical Relativity	Shanghai Astronomical Observatory, China	Visiting Research Scholar
Kaushik Paul	Astrophysical Relativity	Indian Institute of Technology Madras, Chennai	Research Scholar
George Stettinger	String Theory and Quantum Gravity	Czech Academy of Science	Research Scholar
Maneesha Sushama Pradeep	String Theory and Quantum Gravity	University of Maryland, USA	Postdoctoral Fellow
Victor Franken	String Theory and Quantum Gravity	Ecole Polytechnique, France	Research Scholar
Farman Ullah	String Theory and Quantum Gravity	IISER, Pune	Research Scholar
Nathan Matthew McStay	String Theory and Quantum Gravity	University of Cambridge, UK	Research Scholar
Venkata Sai Saketh Muddu	String Theory and Quantum Gravity	University of Maryland, USA	Research Scholar
Mohd. Ali	String Theory and Quantum Gravity	IISER, Pune	Research Scholar
Sravana Chaithanya Kanala Venkata	Fluid Dynamics and Turbulence	University of Dundee, UK	Postdoctoral Fellow
Amit Kumar	Statistical Physics and Condensed Matter	Institute of Mathematical Sciences, Chennai	Research Scholar

Tista Banerjee	Statistical Physics and Condensed Matter	Indian Association for the Cultivation of Science, Kolkata	Research Scholar
Mainak Pal	Statistical Physics and Condensed Matter	Indian Association for the Cultivation of Science, Kolkata	Research Scholar
Amit Kumar	Mathematics	Louisiana State University, USA	Research Scholar
Marwan Najjar	Mathematics	Peking University, China	Postdoctoral Fellow
Adrian Padellaro	Mathematics	Queen Mary University, London	Postdoctoral Fellow
Shrinit Singh	Mathematics	Shiv Nadar Institution of Eminence, Delhi NCR	Research Scholar
Ken Kikuchi	Mathematics	National Taiwan University, Taiwan	Postdoctoral Fellow

1. **Shalabh Gautam**, after finishing his tenure at ICTS-TIFR, joined the Beijing Institute of Mathematical Sciences and Applications, China, for his next postdoctoral position.

VISITING STUDENTS PROGRAM

1. Applications are invited for the ICTS Long Term Visiting Students Program 2025: <https://www.icts.res.in/academic/long-term-visiting-student-program>
2. The selection process for the ICTS S.N. Bhatt Memorial Excellence Fellowship Program 2025 is complete and the results are available on the webpage: <https://www.icts.res.in/academic/summer-research-program>

ICTS IN-HOUSE 2025

The exclusive three-day event was held on 19-22 April 2025 to exchange ideas and research topics amongst members of ICTS.

III

OUTREACH

PUBLIC LECTURE

Peering Into the Darkness – Imaging Black Hole Horizons

Feryal Özel (Georgia Institute of Technology, USA) | 27 March 2025 | Science Gallery Bengaluru

What Happens at Shorter Distances?

Nathan Seiberg (Institute for Advanced Study, Princeton, USA) | 14 February 2025

The Many-Body Physics of Computation

Vedika Khemani (Stanford University, USA) | 15 January 2025

KAAPI WITH KURIOSITY

Three Puzzles from the First Billion Years

Grish Kulkarni (TIFR, Mumbai) | 13 April 2025

Curation as Misinformation

Cailin O'Connor (University of California, Irvine, USA) and James Owen Weatherall (University of California, Irvine, USA) | 22 March 2025

A History of Time

Spenta R. Wadia (ICTS-TIFR, Bengaluru) | 23 February 2025

Quantum Mechanics: The Wild World of Atoms

Klaus Mølmer (Niels Bohr Institute, Copenhagen, Denmark) | 25 January 2025

EINSTEIN LECTURES

Why are turbulent flows so fascinating?

Samriddhi Sankar Ray (ICTS-TIFR, Bengaluru) | 27 February 2025

VISHVESHVARA LECTURES

Quantum Astrophysics

Roger Blandford (Stanford University, USA) | 18 January 2025

MATHS CIRCLE INDIA

ICTS conducted eight online Maths Circle India sessions during January-April 2025.

Session 77

Conducted by: Garima Chauhan, Rohun Easwer, Mihir Mittal, Sam K Mathew, Amit Kuber | **Interactive session:** 15 April 2025

Session 76

Conducted by: Garima Chauhan, Rohun Easwer, Mihir Mittal, Sam K Mathew, Amit Kuber | **Interactive session:** 4 April 2025

Session 75

Conducted by: Garima Chauhan, Rohun Easwer, Mihir Mittal, Sam K Mathew, Amit Kuber | **Interactive session:** 21 March 2025

Session 74

Conducted by: Garima Chauhan, Rohun Easwer, Mihir Mittal, Sam K Mathew, Amit Kuber | **Interactive session:** 7 March 2025

Session 73

Conducted by: Pranav Pandit | **Interactive session:** 18 February 2025

Session 72

Conducted by: Pranav Pandit | **Interactive session:** 5 February 2025

Session 71

Conducted by: Pranav Pandit | **Interactive session:** 21 January 2025

Session 70

Conducted by: Pranav Pandit | **Interactive session:** 7 January 2025

ICTS-RRI MATHS CIRCLE

During January-April 2025, seven maths circle sessions were held at the Raman Research Institute, Bengaluru.

Session 44

Conducted by: Jaikumar Radhakrishnan | **Interactive session:** 26 April 2025

Session 43

Conducted by: Jaikumar Radhakrishnan | **Interactive session:** 12 April 2025

Session 42

Conducted by: Parthanil Roy | **Interactive session:** 22 February 2025

Session 41

Conducted by: Parthanil Roy | **Interactive session:** 22 February 2025

Session 40

Conducted by: Parthanil Roy | **Interactive session:** 8 February 2025

Session 39

Conducted by: Parthanil Roy | **Interactive session:** 25 January 2025

Session 38

Conducted by: Parthanil Roy | **Interactive session:** 11 January 2025

ICTS OPEN DAY

ICTS Open Day Festival 2025 was organized on 8 March 2025. It was attended by more than 450 people. There were 25 stalls put up by ICTS students as well as participants from all over India. Some of the exhibits included tiling and origami, fluid dynamics and turbulence, sky watch, soap film and other fun demonstrations.

SKY WATCH AT ICTS

The ICTS Astro Club organised Sky Watch at ICTS on 27 January 2025 to view a rare parade of six planets.

ICTS BLOG

Synapse at ICTS showcases articles, interviews and journal events. During the period of the report, there have been five blog posts.

ANNEXURE - A

The following are the details of seminars and colloquia during the period January-April 2025:

Holography for Flat Spacetimes - A Carrollian Adventure | Arjun Bagchi
(Indian Institute of Technology Kanpur) | 30 April 2025

Stability Studies of Inviscid Shallow Water Flows on a Sphere | Mukesh Singh
Raghav (ICTS-TIFR, Bengaluru) | 25 April 2025

Cosmological Correlators in Gravitationally-constrained de Sitter States |
Suvrat Raju (ICTS-TIFR, Bengaluru) | 23 April 2025

Gauging Non-invertible Symmetries in 2+1d | Rajath Radhakrishnan
(International Centre for Theoretical Physics, Italy) | 16 April 2025

Influence of Particle Geometry on Hydrodynamic and Electrostatic Interactions | Harshit Joshi (ICTS-TIFR, Bengaluru) | 16 April 2025

Ordering Transition of the Three-dimensional Four-state Random-field Potts Model | Manoj Kumar (National Institute of Science Education and Research, Bhubaneswar) | 16 April 2025

Microlensing of Gravitational Waves as a New Tool for Astrophysics |
Uddeepa Deka (ICTS-TIFR, Bengaluru) | 9 April 2025

An Inflationary Cosmology from (AdS) Wormholes | Panos Betzios (Ghent University, Belgium) | 7 April 2025

Co-evolving Vertex and Edge Dynamics in Dense Graphs | Siva Athreya
(ICTS-TIFR, Bengaluru) | 7 April 2025

The Supercritical Phase of the φ^4 Model is Well-behaved | Trishen
Gunarathnam (TIFR-Mumbai and ICTS-TIFR, Bengaluru) | 7 April 2025

HL Cone, Foams, and Graph Coloring | Amit Kumar (Louisiana State University, USA) | 3 April 2025

The Sound of Black Holes | Vitor Cardoso (Niels Bohr Institute, Denmark) | 3 April 2025

Some Model $\llcorner$ anticommuting $\gg$ Quantum Spin Liquids with Residual Ground State Entropy | Sumiran Pujari (Indian Institute of Technology Bombay, Mumbai) | 2 April 2025

Open Quantum Mechanics for Cosmological Observers | Omkar Sanjay Shetye
(ICTS-TIFR, Bengaluru) | 27 March 2025

Strings from Feynman Diagrams: A Picture Scrapbook | Rajesh Gopakumar (ICTS-TIFR, Bengaluru) | 27 March 2025

Classical Black Hole Thermodynamics and Entropy Bounds in Higher Derivative Theories of Gravity | Nilay Kundu (Indian Institute of Technology Kanpur) | 26 March 2025

Comparing Multivariate Distributions: An Optimal Transport Based Approach | Sreekar Vadlamani (TIFR-CAM, Bengaluru) | 25 March 2025

Heat Transport in Quantum Mechanics: Solvable Models | Loganayagam R (ICTS-TIFR, Bengaluru) | 25 March 2025

Fourier Asymptotics and Effective Equidistribution | Shreyasi Datta (University of York, UK) | 18 March 2025

Holographic Fluctuations at Finite Density | Shivam Kumar Sharma (ICTS-TIFR, Bengaluru) | 18 March 2025

The Black Hole Shadow & Beyond | Prashant Kocherlakota (Harvard University, USA) | 18 March 2025

Advances and Challenges in Fair Division: Quantiles, Subsidies, and Randomization | Vishnu Verambudi Narayan (University of Illinois Urbana-Champaign, USA) | 18 March 2025

Quantum Fields on Maximal Slices | Anurag Kaushal (ICTS-TIFR, Bengaluru) | 17 March 2025

Missing Physics in Gravitational Waveforms and its Ramifications | Chandra Kant Mishra (Indian Institute of Technology Madras, Chennai) | 13 March 2025

The Quantum Life of pi | Aninda Sinha (Indian Institute of Science, Bengaluru) | 12 March 2025

A Non-perturbative Construction of de Sitter Late-time Boundary | Kamran Salehi Vazir (University of Amsterdam, Netherlands) | 10 March 2025

Tidal Response of Relativistic Compact Objects via Gravitational Raman Scattering | Venkata Sai Saketh Muddu (Max Planck Institute, Germany) | 6 March 2025

Mock Modularity of the Twisted Index in CHL Models | Nabamita Banerjee (Indian Institute of Science Education and Research Bhopal) | 6 March 2025

A Moduli Space of Marked Hyperbolic Structures for Big Surfaces | Chaitanya Tappu (Cornell University, USA) | 5 March 2025

On the Formal Moduli of En-monoidal Categories | Bhanu Kiran Sandepudi (ICTS-TIFR, Bengaluru) | 5 March 2025

Inertial Particles in Unsteady Hydrodynamic Environments: Theory and Numerics | Divya Jaganathan (ICTS-TIFR, Bengaluru) | 28 February 2025

Probing Cosmic Expansion with Gravitational Wave-large Scale Structure Correlations | Sayantani Bera (Aix-Marseille University, France) | 27 February 2025

Continuous Weak Measurements on Quantum Many-body Systems and Monitored Josephson Junction Arrays (JJA) | Sumilan Banerjee (Indian Institute of Science, Bengaluru) | 26 February 2025

MCMC Importance Sampling via Moreau-Yosida Envelopes | Dootika Vats (Indian Institute of Technology, Kanpur) | 25 February 2025

Replica Analysis of Entanglement Properties and Conditions for Islands | Arvind Shekar (University of Southampton, UK) | 24 February 2025

Potts and Random Cluster Measures on Locally Tree-like Graphs | Anirban Basak (ICTS-TIFR, Bengaluru) | 24 February 2025

Cryptographic Proofs for Privacy and Integrity | Chaya Ganesh (Indian Institute of Science, Bengaluru) | 24 February 2025

Absence of Normal Transport in an Interacting Disordered Spin Chain | Francois Huveneers (King's College London, UK) | 21 February 2025

Tree level scattering of Bosonic Higher spin Particles | Arnab Rudra (Indian Institute of Science Education and Research Bhopal) | 19 February 2025

Anomalous Continuous Translations | Nathan Seiberg (Institute for Advanced Study, USA) | 14 February 2025

Dynamics of Astrophysical Transients in Galactic Nuclei | Karamveer Kaur (Technion-Israel Institute of Technology, Haifa) | 13 February 2025

Symmetries as Algebras: From Novel Symmetries to Hydrodynamics in Quantum Many-Body Systems | Sanjay Moudgalya (Technical University of Munich, Germany) | 12 February 2025

Probabilistic choice models and AI/ML | Amit Deshpande (Microsoft Research) | 7 February 2025

Exploring the Origin of Solar Eruptive Events Using Solar Atmospheric Magnetic Field Simulations | Prantika Bhowmik (Indian Institute of Science, Bengaluru) | 6 February 2025

Class S Superconformal Indices from Maximal Supergravity | Ritabrata Bhattacharya (Utah State University, USA) | 5 February 2025

Near-extremal Quantum Field Theories in Two Dimensions | Ankit Aggarwal (TU Wien Vienna, Austria) | 3 February 2025

The Faint and the Furious: What are the Lowest Mass Stars that Explode as Core-Collapse Supernovae? | Kaustav Kashyap Das (California Institute of Technology, USA) | 30 January 2025

The Ising Dual-reflection Interface: Z₄ Symmetry, Majorana Strong Zero Modes and SPT Phases | Sergej Moroz (Karlstad University, Sweden) | 29 January 2025

What Distance to Use Between Probabilities over Probabilities? | Hugo Lavenant (Bocconi University, Italy) | 28 January 2025

Biological Data Science from the Perspective of Dynamical Systems | Tosif Ahamed (HHMI, Janelia Research Campus, USA) | 27 January 2025

Gap Statistics and Density Crossovers in Confined Particles with Power-law Interactions | Saikat Santra (ICTS-TIFR, Bengaluru) | 27 January 2025

Bootstrapping the 3d Ising Stress Tensor | Rajeev Erramilli (Institut des Hautes Études Scientifiques, France) | 24 January 2025

Solvable Models of Metals with Spatially Random Electron interactions | Aavishkar Patel (Flatiron Institute, USA) | 24 January 2025

Signatures of Chaos and Integrability in Isolated and Open Quantum Many-body Systems, and Controlling Chaos in the Kicked Top Model | Mahaveer Prasad (ICTS-TIFR, Bengaluru) | 23 January 2025

QFT for AI: A Framework for Robust & Interpretable Models | Anindita Maiti (Perimeter Institute for Theoretical Physics, Canada) | 22 January 2025

Community Detection on Geometric Graphs | Vinay Ramadas (Eindhoven University of Technology, Netherlands) | 20 January 2025

Statistical Physics Across Scales - From Microbes to Metacommunities | Prajwal Padmanabha (University of Lausanne, Switzerland) | 20 January 2025

A Sanov-type Theorem for Marked Sparse Random Graphs and its Applications | Sarath Yasodharan (Indian Institute of Technology Bombay, Mumbai) | 20 January 2025

A Study of Dynamical Instabilities and Filter Stability Using Ensemble Kalman Filters | Shashank Kumar Roy (ICTS-TIFR, Bengaluru) | 20 January 2025

Fast Radio Bursts: Source Properties, Emission Mechanism and Cosmological Applications | Mukul Bhattacharya (University of Wisconsin-Madison, USA) | 20 January 2025

Motion of Anisotropic Particles in Turbulence | Prateek Anand (ICTS-TIFR, Bengaluru) | 14 January 2025

Bridging the scales: A Modeling Framework for the Marine Atmospheric Boundary Layer with Applications to Offshore Wind Energy | Aditya Aiyer (Lehigh University, USA) | 13 January 2025

Towards a Digital-twin of a Living Cell | Vijay Rajagopal (University of Melbourne, Australia) | 9 January 2025

Superconductivity in Flat Bands: New Directions and/or Methods | Gaurav Chaudhary (University of Cambridge, UK) | 8 January 2025

From Microscopics to Hydrodynamics | Sahil Kumar Singh (ICTS-TIFR, Bengaluru) | 6 January 2025

Anomaly Matching for 1-form Symmetries in 2+1d QFTs | Mahesh Balasubramanian (Queen Mary University of London, UK) | 2 January 2025

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ANNEXURE - B

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