Rahul Pandit

FASc, FNA, FTWAS, APS Fellow

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Curriculum Vitae

Personal

date of birth	April 22, 1956
place of birth	New Delhi, India
citizenship	Indian

Education

1979–1982	**Ph.D. in Physics**, *University of Illinois at Urbana-Champaign*, USA.
1977–1979	**M.S. in Physics**, *University of Illinois at Urbana-Champaign*, USA.
1972–1977	**M.S. in Physics**, *Indian Institute of Technology*, New Delhi, India.

Current Positions

Honorary Professor	Department of Physics, Indian Institute of Science, Bangalore, India.
National Science Chair	Since 1 July 2023
Honorary Professor	Indian Institute of Technology Delhi, New Delhi, India.

Current Research Interests

Physics and Computational Science of the following problems:

- Turbulence: statistical properties of fluid, passive-scalar, magnetohydrodynamic, and Burgers turbulence; fluid turbulence with polymers; multi-fluid turbulence; superfluid turbulence; active-fluid turbulence.
- Spiral- and scroll-wave turbulence in mathematical models for cardiac tissue; this is of relevance to the control of life-threatening arrhythmias like ventricular fibrillation.
- Statistical physics of condensed-matter systems and phase transitions (e.g., phases and transitions in cold-atom systems).

Professional experience

August 1981 - December 1983	**Postdoctoral Associate in the Condensed-Matter-Theory Group**, *Laboratory of Atomic and Solid State Physics*, Cornell University, USA.
7th January - 31 December 1984	**Research Associate**, *Department of Physics*, Indian Institute of Science, Bangalore, India.
January 1985 - July 1988	**Research Scientist A (UGC)**, *Department of Physics*, Indian Institute of Science, Bangalore, India.
August 1988 - March 1990	**Research Scientist B (UGC)**, *Department of Physics*, Indian Institute of Science, Bangalore, India.

March 1990 - March 1996	**Assistant Professor**, *Department of Physics*, Indian Institute of Science, Bangalore, India.
March 1996 - March 2002	**Associate Professor**, *Department of Physics*, Indian Institute of Science, Bangalore, India.
March 2002 - 31 July 2021	**Professor**, *Department of Physics*, Indian Institute of Science, Bangalore, India.
1 August 2021 - present	**Honorary Professor**, *Department of Physics*, Indian Institute of Science, Bangalore, India.
Until December 2012	**Member**, *Condensed-Matter Theory Unit*, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India.
April 2001 – March 2008	**Chair**, *International Relations Cell*, Indian Institute of Science, Bangalore, India.
April 2008 – September 2020	**Chair**, *Division of Physical and Mathematical Sciences*, Indian Institute of Science, Bangalore, India.
November 2002 – October 2008	**Honorary Chair**, *Theoretical Sciences Unit*, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India.
	Adjunct Professor, *International Centre for Theoretical Sciences*, Tata Institute of Fundamental Research.
October 2009 – September 2012	**MSIL Chair Professor**, *Indian Institute of Science, Bangalore*, India.
January 2013 – November 2019	**Honorary Professor**, *Jawaharlal Nehru Centre for Advanced Scientific Research*, Bangalore, India.
23 March - 22 April 2014	**Professeur Invité**, *Ecole Normale Superiere*, Paris, France.
4 March - 1 May 2022	**Simons Foundation Fellowship and Organiser Fellowship**, *Isaac Newton Institute, Cambridge University*, UK.
1 August 2007 - 30 June 2023	**JC Bose National Fellow**.
Since 1 July 2023	**National Science Chair**.

Major Research Visits

Jan - April 1986	**Visitor**, *Department of Physics*, The Ohio State University, Columbus, Ohio, USA.
May - July 1987	**Visitor**, *Department of Physics*, The Ohio State University, Columbus, Ohio, USA.
May - July 1988	**Visitor**, *Department of Physics*, The Ohio State University, Columbus, Ohio, USA.
April - June 1989	**Visitor**, *Department of Physics*, The Ohio State University, Columbus, Ohio, USA.
May - June 1990	**Visitor**, *Department of Physics*, The Ohio State University, Columbus, Ohio, USA.
September 1992 - July 1993	**Visitor**, *Department of Physics*, The Ohio State University, Columbus, Ohio, USA.
June - July 1995	**Visiting Scholar**, *Department of Physics*, University of Missouri, Columbia, Missouri, USA.
October - November 1996	**Visiting Scholar**, *Department of Physics*, University of Missouri, Columbia, Missouri, USA.
February - April 2000	**Participant in the Program on *Physics of Hydrodynamic Turbulence***, *Institute for Theoretical Physics*, University of California, Santa Barbara, USA.

April - May 2001	**Visitor**, *Condensed Matter Theory Group*, Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.
June 2001	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
June 2002	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
May 2003	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
May 2005	**Visitor**, *Condensed Matter Theory Group*, Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.
June 2005	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
May - June 2006	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
May - June 2007	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
May - June 2008	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
April - June 2009	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
April - June 2010	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
July 2010	**Utrecht-Asia Visiting Professor**, *Department of Theoretical Biology*, University of Utrecht, Utrecht, The Netherlands.
March 2011	**Participant in the Program on *The Nature of Turbulence***, *Kavli Institute for Theoretical Physics*, University of California, Santa Barbara, USA.
April - June 2011	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
October 2011	**Visitor**, *NORDITA, Stockholm*, Sweden.
March 2012	**Visitor**, *Kavli Institute for Theoretical Physics*, China.
April - June 2012	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
May 2012	**Visitor**, *Wolfgang Pauli Institute*, Vienna.
August-September 2012	**Visitor**, *NORDITA, Stockholm*, Sweden.
April - June 2013	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
May 2013	**Visitor**, *NORDITA, Stockholm*, Sweden.
August 2013	**Visitor**, *NORDITA, Stockholm*, Sweden.
22 April - 7 June 2014	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
15-22 June 2014	**Visitor**, *NORDITA, Stockholm*, Sweden.
20 April - 8 June 2015	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
18 August - 24 August 2015	**Visitor**, *NORDITA, Stockholm*, Sweden.
20 April - 12 June 2016	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
2 May - 19 June 2017	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
16 August - 27 August 2017	**Visitor**, *NORDITA, Stockholm*, Sweden.
1 October - 28 October 2017	**Visitor**, *Simons Center for Geometry and Physics, Stony Brook University*, USA.
23 April - 12 June 2018	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.

9 - 20 July 2018	**Visitor**, *University of Helsinki, Institute for Atmospheric and Earth System Research*, Helsinki.
17 May - 27 June 2019	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
17 August - 14 September 2019	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
4 March - 1 May 2022	**Simons Foundation Fellow**, *Isaac Newton Institute, Cambridge University*, UK.
14 September - 28 November 2022	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
13 - 24 February 2023	**Visitor**, *Kyoto University*, Japan.
1 September - 24 October 2023	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
20 - 31 March 2024	**Visitor**, *Kyoto University*, Japan.
11 May - 27 June 2024	**Organiser of a Programme on "Anti-diffusive dynamics: from sub-cellular to astrophysical scales"**, *Isaac Newton Institute, Cambridge University*, UK.
1 September - 24 October 2024	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.
1 May - 24 June 2025	**Visitor**, *Observatoire de la Côte d'Azur, Nice*, France.

Awards, Prizes, Honours

- National Science Talent Search Scholar, India - 1972-77.
- Silver Medal (first in the Physics class), Indian Institute of Technology, New Delhi - 1977.
- Member, Phi Kappa Phi.
- Exxon Fellow, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA - 1979.
- Member Sigma Xi.
- Associate of the Indian Academy of Sciences (until the age of 35, i.e., until April 1991).
- Young Scientist Medal of the Indian National Science Academy - 1988.
- Elected a Fellow of the Indian Academy of Sciences (FASc) - 1 January 1996.
- Shanti Swarup Bhatnagar Award of the Council of Scientific and Industrial Research - 2001.
- Meghnad Saha Award of the University Grants Commission - 2004.
- Elected a Fellow of the Indian National Science Academy (FNA) - 1 January 2006.
- DAE Raja Ramanna Award Lecture, 14 August 2007, Jawaharlal Nehru Centre for Advanced Scientific Research.
- JC Bose National Fellow of the Department of Science and Technology and SERB, India, 1 August 2007 - 30 June 2023.
- Professor Rustom Choksi Award of the Indian Institute of Science - 2009.
- MSIL Chair Professor at the Indian Institute of Science - October 2009 - 2012.
- Distinguished Alumni Award, Indian Institute of Technology, Delhi - August 2010.
- Outstanding Referee of the Physical Review and Physical Review Letters journals of the American Physical Society - 2012.
- Elected a Fellow of The World Academy of Sciences (FTWAS) - November 2015.
- Goyal Prize for Physical Sciences, 11 April 2017.
- An elected Vice President of the International Union for Pure and Applied Physics (IUPAP) November 2017 - October 2021.

- Satyendranath Bose Medal of the Indian National Science Academy - 2021.
- National Science Chair SERB, India, Since 1 July 2023.
- Named a 2025 American Physical Society (APS) Fellow - 10 October 2025. *For important contributions to challenging and fundamental problems in statistical and nonlinear physics, and for extensive service to the community.*

Service on Editorial Boards and other Bodies

- On the Advisory Editorial Board of *Physica A: Statistical Mechanics and its Applications*, an Elsevier Science Journal since late 2001 for six years.
- Divisional Associate Editor of *Physical Review Letters* from late December 2004 until December 2010.
- Editorial Board, *Scientific Reports, Nature Publishing Group*.
- Review Editor *Frontiers in Physiology* (for Computational Physiology and Medicine).
- Member of the C3 Commission on Statistical Physics of the International Union for Pure and Applied Physics since November 2011.
- Secretary of the C3 Commission on Statistical Physics of the International Union for Pure and Applied Physics January 2014 - December 2017.
- Chair of the National Committee (under the aegis of the Indian National Science Academy) for the International Union of Pure and Applied Physics (IUPAP), for three years ending in April 2015.
- Member of the Physics Sectional Committee of the Indian Academy of Sciences, for three years starting July 2016.
- Elected Chair of the C3 Commission on Statistical Physics of the International Union for Pure and Applied Physics (IUPAP) January 2018 - October 2021.
- An elected Vice President of the International Union for Pure and Applied Physics (IUPAP) November 2017 - October 2021.
- On the Board of Directors of Science Gallery Bengaluru (from its inception until 3 March 2021).
- On the Editorial Board of *Physics Open*, an Elsevier Science Journal, starting mid-October 2019 - 2023.

Research Interests

Problems in Condensed-Matter Theory, Phase Transitions, Statistical Mechanics, and Nonlinear Dynamics including:

- Turbulence: statistical properties of fluid, passive-scalar, passive-vector, magneto-hydrodynamic, and Burgers turbulence; fluid turbulence with polymers; superfluid turbulence; turbulence in binary-fluid mixtures; turbulence in particle-laden flows; bacterial and active-fluid turbulence; machine-learning techniques for path planning of microswimmers in turbulent flows.
- *In silico* studies of few-variable and biologically realistic mathematical models for cardiac tissue, with, *inter alia*, cardiac myocytes and fibroblasts, in idealised and anatomically realistic domains, to understand, and then control, cardiac arrhythmias like ventricular tachycardia and ventricular fibrillation; artificial-intelligence methods for the detection and control of waves of electrical activation in these models.
- Spatiotemporal chaos in extended, deterministic dynamical systems: Kuramoto-Sivashinsky, Complex Ginzburg-Landau, and FitzHugh-Nagumo equations.
- Superfluid, Mott-insulator, and other phases in systems of interacting bosons on a lattice, e.g., cold-atom systems.
- Nonlinear dynamics and its applications in condensed-matter physics.
- Machine-learning applications in fluid dynamics, statistical physics, and condensed-matter physics.

- The statistical mechanics of quantum antiferromagnets, models for the colossal magnetoresistive manganites, other correlated electron models (e.g., the Hubbard and extended-Hubbard models).
- Complex Fluids: Microemulsion, micellar, lamellar, and sponge phases in oil-water-surfactant mixtures and bilayer systems, and semiflexible, living and equilibrium polymers.
- Kinetics of first-order phase transitions, including hysteresis and domain growth.
- Nonequilibrium statistically steady states in driven, many-body systems.
- The statistical mechanics of systems with surfaces, interfaces, and membranes including wetting and roughening.
- Density-functional theories of crystalline, liquid-crystalline, and quasicrystalline phases.

I have studied a variety of problems in theoretical statistical mechanics and the nonlinear dynamics of condensed-matter and complex systems.

My doctoral work, carried out as a student at the University of Illinois at Urbana-Champaign, led to a unified understanding of multilayer adsorption and wetting transitions, to the prediction of triple-point wetting, and to a relation between mean-field theory and area-preserving maps in dynamical systems [see, e.g., Refs. 3-5, and 10; here and henceforth reference numbers refer to papers in the list of publications below].

My work as a postdoctoral associate at Cornell University led, *inter alia,* to an understanding of the scaling properties of the spectra of Schrödinger equations with quasiperiodic potentials [Refs. 9 and 11].

I returned to the Indian Institute of Science in January 1984; the studies carried out since then are described below:

Over the period 1987-90, we developed and studied a good lattice model and a Landau-Ginzburg theory for mixtures of oil, water and surfactant, which show microemulsion phases and micellization [see, e.g., Refs. 16, 19, 21, and 25].

Over the period 1989-91, we pioneered the study of hysteresis in model spin systems, elucidated the systematics of the dependence of the area of a hysteresis loop on the frequency and amplitude of the driving field, and showed that this area must have simple scaling forms [see, e.g., Refs. 22, 23, 24, and 26].

Over the period 1993-96, we used a numerical coarse-graining procedure to show how spatiotemporal chaos, generated in a deterministic system, can be mimicked by a stochastic equation, in the context of the Kuramoto-Sivashinsky, Kardar-Parisi-Zhang, and Complex Ginzburg-Landau equations [see, e.g., Refs. 30, 32, and 38]. We have returned to this problem recently [Ref. 139]. Prähofer and Spohn's work on the one-dimensional (1D) Kardar-Parisi-Zhang (KPZ) stochastic partial differential equation (SPDE) initiated "the 2nd KPZ Revolution". We have demonstrated, for the first time for a deterministic partial differential equation (PDE), how to obtain their results for the 1D Kuramoto-Sivashinsky (KS) PDE, where spatiotemporal chaos plays the role of the KPZ noise. In particular, Tracy-Widom and Baik-Rains distributions appear as universal limit distributions for height fluctuations in the 1D KPZ SPDE. We obtain the same universal distributions in the spatiotemporally chaotic, nonequilibrium, but statistically steady state (NESS) of the 1D KS PDE, by carrying out extensive direct numerical simulations to obtain the spatiotemporal evolution of the KS height profile $h(x,t)$ for different initial conditions.

Around 1993 we studied crystallization and glass formation in systems of semiflexible, living polymers (which occur in water-surfactant mixtures, etc.) by using lattice and continuum models and novel Monte Carlo techniques [see, e.g., Refs. 31, 36, 41, 51, 59, and 62].

In 1993 we also examined the consequences of using a negative-U, extended-Hubbard model for the superconducting and semiconducting phases in compounds derived from Barium Bismuthate. This work led to an explanation for the puzzle of the widely separated optical and transport gaps seen in experiments [see, e.g., Refs. 28, 33, and 39]. Other related work includes one of the first theories for charge-ordered antiferromagnetic phases in the colossal magnetoresistive manganites [Refs. 45, 47, and 55] that considered the possibility of first-order phase coexistence between different phases.

We have developed an intuitively appealing mean-field theory for Bose-Hubbard models; this has led to new and physical insights into the superfluid-Mott insulator transition and, in the disordered case, the Bose-glass

phase; this mean-field theory has been augmented by random-phase approximation and density-matrix renormalization-group studies [see, e.g., Refs. 29, 35, and 40]. We have generalised these studies to the extended-Bose-Hubbard model, the spin-1 case [see, e.g., Refs. 65, 69, 75, and 77], and to Bose-Hubbard Models in confining potentials [see, e.g., Refs. 93 and 94].

In recent work we have examined: (a) exotic multifractal conductance fluctuations in graphene [Ref. 131]; (b) transport, multifractality, and the breakdown of single-parameter scaling at the localization transition in quasiperiodic systems [Ref. 135]; and (c) multifractal conductance fluctuations in high-mobility graphene in the integer quantum hall regime [Ref. 154]; these studies bring together theoretical and experimental investigations.

Since 1996, we have carried out several studies of the statistical properties of turbulence via extensive direct numerical simulations of shell models, the Navier-Stokes and MHD equations in two and three dimensions (2D and 3D), the Navier-Stokes equation coupled to the FENE-P model for polymers, the randomly forced Burgers and Navier-Stokes equations, the passive-scalar equation, the Cahn-Hilliard-Navier-Stokes (CHNS) equation for binary- and ternary-fluid mixture, and to active-fluid models. The main goals of these studies have been the elucidation of the statistical properties of turbulence in these systems, including the multiscaling of structure functions in homogeneous, isotropic turbulence [see, e.g., Refs. 42, 43, 49, 83, 84, 85, 86, 87, 100, 102, and 118]. We have studied multiscaling in the randomly forced (power-law forcing) Navier Stokes equation [Ref. 50] and the analogous problem for the one-dimensional Burgers equation [Refs. 70, 147, and 159] and two-dimensional Burgers equation [Ref. 169]. Our work has elucidated (a) the dynamic multiscaling of time-dependent structure functions in fluid and passive-scalar turbulence [Refs. 68, 73, 78, 79, 92, 118, 159, and 169], (b) the nature of homogeneous, isotropic turbulence with polymer additives [Refs. 71, 74, 87, 108, 126, and 128], (c) the bottleneck in the energy spectrum in turbulence [Refs. 80 and 96], and (d) two-dimensional fluid and MHD turbulence with friction [Refs. 83, 85, 89, 92, 106, 125, 126, 128, and 136], (e) the persistence problem in fluid turbulence [Refs. 89 and 119], (f) superfluid turbulence in the two-dimensional Gross-Pitaevskii and HVBK equations [Refs. 97, 110, 116, 117, 128, 130, 144, 157, 162, and 167], (g) vorticity and related moments in the three-dimensional Navier-Stokes and MHD equations [Refs. 99, 105, 113], (h) the statistical properties of particles in turbulent flows [Refs. 89, 92, 103, 119, 122, 128, and 133], (i) MHD and Hall-MHD turbulence [Refs. 49, 66, 67, 86, 88, 100, 102, 106, 113, 118, 128, 136, and 152], and (j) binary- and ternary-fluid turbulence in the CHNS equations [Refs. 114, 120, 125, 128, 132, 155, 161, 163, and 168]. Recently we have: (a) shed new light on the one-dimensional Kardar-Parisi-Zhang and Kuramoto-Sivashinsky universality class by calculating limit distributions [Refs. 139 and 147]; (b) used machine learning for optimal-path planning for microswimmers that try to go from one point to a target point in turbulent flows in two and three dimensions [Ref. 140]; (c) defined and explored a first-passage-time problem for tracers in turbulent flows and applied it to the spreading of viruses such as SARSCoV2 (Ref. 141); (d) studied the formation of compact objects at finite temperatures in a dark-matter-candidate self-gravitating bosonic system by using the Gross-Pitaevskii-Poisson equation and also rotating self-gravitating Bose-Einstein condensates with a crust, which leads to a minimal model for pulsar glitches [Refs. 144, 148, and 167]; (e) obtained new insights from a pseudospectral study of a potentially singular solution of the three-dimensional axisymmetric incompressible Euler equation [Ref. 150], a problem of central importance in mathematical fluid dynamics; (f) carried out a direct numerical simulation of a turbulent channel flow with Forchheimer drag [Ref. 151]; and (g) studies of turbulence in models for active-fluid turbulence, e.g., an elucidation of irreversiblity in bacterial turbulence (via the mean-bacterial-velocity model) and an analytical and computational study of the incompressible Toner-Tu Equations [Refs. 156, 158, 161, 163, and 168].

We have studied spiral- and scroll-wave turbulence and spatiotemporal chaos in excitable media such as models for the oxidation of CO on Pt(110) [Refs. 57 and 58] and mathematical models for cardiac tissue. The latter studies are relevant for developing an understanding of ventricular fibrillation, a type of cardiac arrhythmia that is responsible for 1 out of every 6 deaths in the industrialised world. In one of these studies [Ref. 58] we have suggested a new and efficient method for low-amplitude defibrillation based on the control of spatiotemporal chaos and spiral turbulence. Our subsequent work in this area has examined the effects of inhomogeneities in mathematical models of cardiac tissue on spiral-wave dynamics [see, e.g., Refs. 76, 81, 82, 90, 91, 95, 98, 101, 104, 107, 109, 111, 112, 115, and 164]; these studies compare such dynamics in simple

models (based on the FitzHugh-Nagumo model) and state-of-the-art partial-differential equation models for cardiac tissue that include voltage-gated ion channels, ion exchangers, and ion pumps. An important qualitative result of these studies is that spiral-wave dynamics in such models depends sensitively on the position, type, and shape of inhomogeneities in cardiac tissue, thus providing a natural explanation of a variety of experimental results [see Refs. 76, 81, 82, 90, 91, 95, 98, 101, 104, 107, 109, 111, 112, 115, and 164]. We are now studying mathematical models for cardiac tissue that include (a) fibroblasts in addition to myocytes [Refs. 98, 101, 111, 121, 123, 127, and 129], (b) Purkinje fibers [Ref. 124], (c) mechanical deformation [Ref. 104], (d) early and delayed afterdepolarizations (EAD and DADs) [Refs. 101, 109, 112, and 146], and (d) anatomically realistic geometries for mammalian hearts [Refs. 115, 121, 145, 149, 153, 164]. Recently we have developed machine-learning methods for detecting and terminating spiral and broken-spiral waves in mathematical models for cardiac tissue [Refs. 137, 142, 160, 164, 165, and 166].

Research Guidance

Ph.D. Students (Former)

○ Madan Rao, 1989	○ (now on the faculty of NCBS, Bangalore)
○ Mangal Mahato, 1989	○ (now on the faculty of NEHU, Shillong)
○ Arghya Taraphder, 1991	○ (now on the faculty of IIT Kharagapur)
○ K. Sheshadri, 1995	○ (Independent Researcher
○ Gautam I. Menon, 1995	○ (now on the faculties of IMSc, Chennai, and Ashoka University, Sonepat)
○ Sujan K. Dhar, 1997	○ (now Principal Investigator, Computational Biology, Mazumdar Shaw Medical Foundation, Bengaluru
○ Anirban Sain, 1999	○ (now on the faculty of IIT Bombay)
○ Abhik Basu, 2000	○ (now on the faculty of SINP, Kolkata)
○ Ashwin Pande, 2001	○ (now on the faculty of Ahmedabad University)
○ Apratim Chatterji, 2003	○ (now on the faculty of IISER Pune)
○ Dhrubaditya Mitra, 2005	○ (now on the faculty of NORDITA, KTH, Stockholm)
○ Chirag D. Kalelkar, 2006	○ (now on the faculty of IIT Kharagapur)
○ P.K. Madhavan Unni, 2006	○ (now on the faculty of NIT Calicut)
○ T.K. Shajahan, 2008	○ (now on the faculty of NITK Surathkal)
○ Prasad Perlekar, 2010	○ (now on the faculty of TCIS, TIFR Hyderabad)
○ Samriddhi Sankar Ray, 2010	○ (now on the faculty of ICTS, TIFR Bangalore)
○ Ganapati Sahoo, 2010	○ (Postdoctoral Fellow, University of Helsinki)
○ Jamshid M. Kurdestany, 2013	○ (now Radiation Oncology Medical Physicist, Department of Radiation Oncology, Mercy Cancer Center, Oklahoma City, USA)
○ Alok Ranjan Nayak, 2014	○ (now on the faculty of IIIT, Bhubaneswar)
○ Anupam Gupta, 2014	○ (now on the faculty of IIT Hyderabad)

- Rupamamjari Majumder, 2014
  - (now on the faculty UMR S 1087 / UMR C 6291 l'Unité de Recherche de l'Institut du Thorax, Nantes, France
- Vishwanath Shukla, 2015
  - (now on the faculty of IIT Kharagapur)
- Debarghya Banerjee, 2015
  - (Postdoctoral Researcher at the Max Planck Institute for for the Physics of Complex Systems, Dresden)
- Akshay Bhatnagar, 2016
  - (now on the faculty of IIT Palakkad)
- Nairita Pal, 2017
  - (now on the faculty of IIT Kharagpur)
- Soling Zimik, 2018
  - (now a Postdoctoral Fellow, Institute of Mathematical Sciences, Chennai)
- K.V. Rajany, 2020
  - (now at Scientific Computing Department, STFC, Daresbury Laboratory, UK)
- Akhilesh Verma, 2021
  - (now a postdoctoral fellow at the University of Miami, USA)
- Dipankar Roy, 2021
  - (now a postdoctoral fellow at Laboratoire Jean Alexandre Dieudonné, Université Côte d'Azur, Nice, France)
- Mahesh Kumar Mulimani, 2022
  - (now a postdoctoral fellow at the University of California, San Diego, USA)
- Nadia Bihari Padhan, 2024
  - (now a Postdoctoral Research Fellow at TU Dresden, Dresden, Germany)
- Navneet Roshan, 2024
  - (now a Postdoctoral Research Fellow at l'Institut du Thorax, Nantes, France)
- Kolluru Venkata Kiran, 2024
  - (now a Postdoctoral Research Fellow at l'Institut de Physique de Nice, CNRS , Nice, France)
- Sai Swetha Venkata Kolluru, 2024
  - (now a Postdoctoral Research Fellow at Service de Physique de l'Etat Condensé, CEA L'Orme des Merisiers, France)
- Sadhitro De, 2024
  - (now a Postdoctoral Research Assistant, Atmospheric Physics Clarendon Laboratory, University of Oxford, UK)
- Sanjay Shukla, 2024
  - (now a Postdoctoral Fellow, Applied Physics and of Mathematics and Computer Science at Eindhoven University of Technology (TU/e), Eindhoven, The Netherlands)
- Vasanth Kumar Babu, 2025
  - (now a Postdoctoral Fellowship in the University of Bern, Switzerland)

Ph.D. Students (Current)

- Biswajit Maji

Postdoctoral Fellows (Former)

- Muktish Acharyya
  - (now on the faculty of Presidency University, Kolkata)
- Abhik Basu
  - (now on the faculty of SINP, Kolkata)

○ Ramesh V. Pai	○ (now on the faculty of University of Goa)
○ Sitabhra Sinha	○ (now on the faculty of IMSc, Chennai)
○ T.K. Shajahan	○ (now on the faculty of NITK Surathkal)
○ Ganapati Sahoo	○ (now a Postdoctoral Fellow, University of Helsinki)
○ Jamshid M. Kurdestany	○ (now Radiation Oncology Medical Physicist, Department of Radiation Oncology, Mercy Cancer Center, Oklahoma City, USA)
○ Vishwanath Shukla	○ (now on the faculty of IIT Kharagapur)
○ Soling Zimik	○ (now a Postdoctoral Fellow, Institute of Mathematical Sciences, Chennai)
○ Jaya Kumar Alageshan	○ (now a Postdoctoral Fellow with Dr. Animesh Kuley,IISc)
○ Sharad Yadav	○ (now on the faculty of SVNIT, Surat)
○ Mahesh Kumar Mulimani	○ (now a postdoctoral fellow at the University of California, San Diego, USA)
○ Akanksha Gupta	○ now on the faculty of Maulana Azad NIT, Bhopal
○ Nadia Bihari Padhan	○ now a Postdoctoral Research Fellow at TU Dresden, Dresden, Germany
○ Vasanth Kumar Babu	○ (now a Postdoctoral Fellowship in the University of Bern, Switzerland)

Postdoctoral Fellows (Current)

Undergraduate Research

○ P. Shubham Parashar	○ Puneet Sharma
○ Himanshu Chaudhry	○ Soumak Bhattacharjee
○ Vaishnavi V.G.	○ Surya K.
○ Bernadette Varsha	○ Rudra Nath Mistry
○ Diyanshu Sanjay Wahane	○ Snehasish Ghosh

Publications

[1] N.M. Svrakić, R. Pandit, and M.Wortis, Surface thermodynamic functions of the Ising model from a renormalization group, *Phys. Rev. B*, 22:1286, (1980).

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Books Edited

1. **Proceedings of the 22nd IUPAP International Conference on Statistical Physics**, eds. S. Dattagupta, H.R. Krishnamurthy, R. Pandit, T.V. Ramakrishnan, and D. Sen, Reprinted from *Pramana - J. Phys.*, May and June 2005 (Indian Academy of Sciences, 2005).

Patents

1. **Patent granted: Government of India PATENT No. 199042 (date of grant 1/03/2006) - for "An Improved System for Ventricular Defibrillation"** This is owned by the Indian Institute of Science; it is based on work done by me in collaboration with my students and postdoctoral fellows, namely, Ashwin Pande, Sitabhra Sinha, and Avishek Sen.

Invited Talks

1. **Electrons in a One-Dimensional, Quasiperiodic Potential** - Indian Institute of Science, Bangalore, India - Spring 1984.
2. **Wetting and Layering Transitions** - Indian Institute of Science, Bangalore, India - Spring 1984.
3. **Wetting and Layering Transitions** - Institute of Physics, Bhubaneswar, India - Summer 1984.
4. **Scaling phenomena in Kolmogorov-Arnold-Moser Problems** - Institute of Physics, Bhubaneswar, India - Summer 1984.
5. **Electrons in a One-Dimensional, Quasiperiodic Potential** - Institute of Physics, Bhubaneswar, India - Summer 1984.
6. **Wetting and Layering Transitions: An Overview** - Talk given at a Workshop on *Recent Advances in Theoretical Physics* held at the Indian Institute of Technology, Kanpur, India, December 1984.
7. **Electrons in a One-Dimenstional, Quasiperiodic Potential** - Talk given at a Workshop on *Recent Advances in Theoretical Physics* held at the Indian Institute of Technology, Kanpur, India, December 1984.

8. **Kinetics of Domain Growth: The Relevance of Two-Step Quenches** - Talk given at the Golden Jubilee Meeting of the Indian Physical Society held at the Indian Association for the Cultivation of Sciences, Calcutta, India - February 1985.
9. **Quasicrystals: A Status Report** - Two talks given at a Science and Engineering Research Council (India) Summer School held at the Indian Institute of Technology, Bombay, India - May 1985.
10. **Quasicrystals: A Status Report** - Tata Institute of Fundamental Research, Bombay, India - July 1985.
11. **Kinetics of Domain Growth : The Relevance of Two-Step Quenches** - Univeristy of Hyderabad, Hyderabad, India - October 1985.
12. **Quasicrystals: A Status Report** - Talk given at a Chemistry Winter School held at the Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore, India - December 1985.
13. **Quasicrystals: A Status Report** - Talks given at the Department of Atomic Energy (India) Symposium on Solid State Physics held at the Univeristy of Nagpur, India - December 1985.
14. **Microemulsions: A Lattice Model** - Cornell University, Ithaca, New York, USA - April 1986.
15. **Microemulsions: A Lattice Model** - University of Illinois at Urbana-Champaign, Urbana, Illinois, USA - April 1986.
16. **Microemulsions: A Lattice Model** - Tata Institute of Fundamental Research, Bombay, India - June 1986.
17. **Microemulsions: A Lattice Model** - Talk given at the Sixth International Symposium on *Surfactants in Solutions* held at New Delhi, India - August 1986.
18. **Microemulsions** - Two talks given at a Workshop on *Porous Media* held at the International Centre for Theoretical Physics, Trieste, Italy - August 1987.
19. **Statistical Mechanics of Interfaces** - Four talks given at the Third Science and Engineering Research Council (India) School held at Bhaba Atomic Research Centre, Bombay, India - December 1987.
20. **Hysteresis in Model Spin Systems** - The Ohio State Univeristy, Columbus, Ohio, USA - June 1988.
21. **The Statistical Mechanics of Microemulsions** - At the Annual Meeting of the Indian Academy of Scineces held in Calcutta, India - October 1988.
22. **The Statistical Mechanics of Microemulsions** - Jawaharlal Nehru Univeristy, New Delhi, India - January 1989.
23. **Complex Fluids** - Two lectures given at a Workshop on *Open Problems in Classical, Condensed-Matter Physics* held at the Indian Institute of Science, Bangalore, India - April 1989.
24. **The Statistical Mechanics of Micelles and Microemulsions** - Lecture given at the Indo-USSR Conference on *Phase Transitions and Allied Phenomena* held at the Indian Institute of Science, Bangalore, India - February 1990.
25. **The Statistical Mechanics of Micelles and Microemulsions** - Four lectures given at a Workshop on *Complex Fluids* held at the Indian Institute of Science, Bangalore, India under the auspices of the Jawaharlal Nehru Centre for Advanced Scientific Research - March 1990.
26. **Hysteresis in Model Spin Systems** - Tata Institute of Fundamental Research, Bombay, India - April 1990.
27. **Modelling Superconductors derived from Barium Bismuthate** - Tata Institute of Fundamental Research, Bombay, India - April 1990.
28. **The Statistical Mechanics of Micelles and Microemulsions** - J.C. Bose Institute, Calcutta, India - April 1990.
29. **Hysteresis in Model Spin Systems** - S.N. Bose Centre, Calclutta, India - April 1990.
30. **The Statistical Mechanics of Micelles and Microemulsions** - University of Poona, Pune, India - April 1990.
31. **The Statistical Mechanics of Micelles and Microemulsions** - Institute of Mathematical Sciences, Madras, India - November 1991.
32. **Melts of Semiflexible, Living Polymers: A Lattice Model** - Jawaharlal Nehru University, New Delhi, India - January 1992.
33. **Chaos in Complex Systems** - Four talks delivered as part of a short course on *Chaotic Dynamics* held at the Inter University Consortium for DAE facilities, Indore, India - March 1992.

34. **The Statistical Mechanics of Micelles and Microemulsions** - Indian Institute of Technology, New Delhi, India - March 1992.
35. **The Superconducting and Semiconducting Behaviour of the Doped Barium Bismuthates** - The Ohio State University, Columbus, Ohio, USA - November 1992.
36. **The Superconducting and Semiconducting Behaviour of the Doped Barium Bismuthates** - University of Missouri, Columbia, Missouri, USA - April 1993.
37. **The Statistical Mechanics of Micelles and Microemulsions** - University of Cincinnati, Cincinnati, Ohio, USA - April 1993.
38. **The Statistical Mechanics of Micelles and Microemulsions** - A T & T Bell Laboratories, Murray Hill, New Jersey, USA - May 1993.
39. **The Superconducting and Semiconducting Behaviour of the Doped Barium Bismuthates** - University of Maryland, College Park, Maryland, USA - June 1993.
40. **Universal Properties of the Kuramoto-Sivashinsky and Related Equations** - Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore in the *Workshop on Turbulence as a Problem in Physics* - December 1993.
41. **Disordered Interacting Bosons** - S.N. Bose National Centre for Basic Sciences, Calcutta in the *Conference on Bose and Twentieth Century Physics* - January 1994.
42. **Universal Properties of the Kuramoto-Sivashinsky and Related Equations** - Tata Institute of Fundamental Research, Bombay in the *International Colloquium on Modern Quantum Field Theory II* - January 1994.
43. **Universal Properties of the Kuramoto-Sivashinsky and Related Equations** - Indira Gandhi Centre for Atomic Research, Kalpakkam in the *Conference on Computational Physics* - March 1994.
44. **Lattice Models for Semiflexible, Living Polymers** - Indian Institute of Science, Bangalore in the *Discussion Meeting on Computer Simulations in Materials Science* - November 1994.
45. **Interacting Bosons in Disordered Environments** - Two talks given at the Indian Institute of Science, Bangalore in the *Winter School on Some Recent Advances in Quantum Many Body Physics* - January 1995.
46. **Interacting Bosons in Disordered Environments** - Department of Physics, University of Missouri, Columbia, Missouri, USA - June 1995.
47. **Systematics of the Reynolds-Number Dependence of the GOY Shell Model for Turbulence** - S.N. Bose Centre for Basic Sciences, Calcutta in the International Conference on *Dynamics of Complex Systems* - August 1995.
48. **Systematics of the Reynolds-Number Dependence of the GOY Shell Model for Turbulence** - Institute for Mathematical Sciences, Madras - November 1995.
49. **Interacting Bosons in Disordered Environments** - Mehta Research Institute, Allahabad - December 1995.
50. **Systematics of the Reynolds-Number Dependence of the GOY Shell Model for Turbulence** - Jawaharlal Nehru University, New Delhi - December 1995.
51. **Sponge Phase Transitions from a Lattice Model** - at the International Conference on *Liquid Crystals and Supramolecular Fluids*, Centre for Liquid Crystals Research, Bangalore - January 1996.
52. **Interacting Bosons in Disordered Environments** - at the Conference on *Disorder and Interactions in Electron Systems*, Indian Institute of Science, Bangalore - January 1996.
53. **Inertial- and Dissipation-Range Asymptotics in Fluid Turbulence** - at Centre for Mathematical Modelling and Computer Science (CMMACS), Bangalore - June 1996.
54. **Inertial- and Dissipation-Range Asymptotics in Fluid Turbulence** - at the mid-year Meeting of the Indian Academy of Sciences, Bangalore, Bangalore - July 1996.
55. **Some Recent Advances in the Theory of Homgeneous Isotropic Turbulence** - Department of Physics, University of Missouri, Columbia, Missouri, USA - October 1996.
56. **Inertial- and Dissipation-Range Asymptotics in Fluid Turbulence** - at the Centre for Nonlinear Studies, Bharatidasan University during a Workshop on Chaos in Dynamical Systems - December 1996.
57. **Interacting Bosons in Disordered Environments** - Department of Physics, University of Pune as part of

the International Conference on Condensed Matter Theory (CMT XX) - December 1996.

58. **Homogeneous Isotropic Turbulence** - Department of Physics, University of Pune as part of the Lectures on the Frontiers of Condensed Matter, organised by the Jawaharlal Nehru Centre for Advanced Scientific Research - December 1996.
59. **Multiscaling in Models of Magnetohydrodynamic Turbulence** - Institute for Plasma Research, Ahmedabad - November 1997.
60. **Spatiotemporal Chaos in the Two-Dimensional FitzHugh-Nagumo Equation** - National Chemical Laboratory, Pune, during the International Meeting on ... - December 1997.
61. **Spatiotemporal Chaos in Pattern-Forming Systems** - Two lectures given at Mangalore University as part of the Lectures on the Frontiers of Condensed Matter, organised by the Jawaharlal Nehru Centre for Advanced Scientific Research - December 1997.
62. **Charge Ordering via Electron-Electron Interactions in the Colossal-Magnetoresistive Manganites** - at a Discussion Meeting on Novel Properties of the Colossal Magnetoresistive Oxides held at the Jawaharlal Nehru Centre for Advanced Scientific Research, January 1998.
63. **Multiscaling in Models of Magnetohydrodynamic Turbulence** - at the Centre for Nonlinear Studies, Bharatidasan University during the International Conference on Nonlinear Dynamics: Integrability and Chaos, February 1998.
64. **Spatiotemporal Chaos in the Two-Dimensional FitzHugh-Nagumo Equation** - at the Centre for Nonlinear Studies, Bharatidasan University during the International Conference on Nonlinear Dynamics: Integrability and Chaos, February 1998.
65. **Lattice Models for Semiflexible, Living Polymers** - International Centre for Theoretical Physics, Trieste, Italy as part of a Workshop on Soft Condensed Matter - May 1998.
66. **Multiscaling in Fluid and MHD Turbulence** - at the Department of Computational Science, National University of Singapore - June 1998.
67. **Spatiotemporal Chaos in the Two-Dimensional FitzHugh-Nagumo Equation** - at the Department of Computational Science, National University of Singapore - June 1998.
68. **Spiral Turbulence: From the Oxidation of CO on Pt(110) to Ventricular Fibrillation** - at the Jawaharlal Nehru Centre for Advanced Scientific Research - November 1998.
69. **Turbulence and Multiscaling in the Randomly Forced Navier-Stokes Equation** - at the S.N. Bose National Centre for Basic Sciences, Calcutta in the International Conference "Statphys. - Calcutta III" - January 1999.
70. **Turbulence and Multiscaling in the Randomly Forced Navier-Stokes Equation** - Institute of Mathematical Sciences, Chennai - January 1999.
71. **Spiral Turbulence: From the Oxidation of CO on Pt(110) to Ventricular Fibrillation** - at Tata Institute of Fundamental Research, Mumbai - March 1999.
72. **Turbulence and Multiscaling in the Randomly Forced Navier-Stokes Equation** - Indian Institute of Astrophysics, Bangalore - April 1999.
73. **Spiral Turbulence: From the Oxidation of CO on Pt(110) to Ventricular Fibrillation** - at Jawaharlal Nehru Centre for Advanced Scientific Research and Indian Institute of Science, Bangalore in the International Discussion Meeting on "Recent Trends in Nonequilibrium Statistical Physics" - November 1999.
74. **Charge Ordering via Electron-Electron Interactions in the Colossal-Magnetoresistive Manganites** - at a Discussion Meeting on Strongly Correlated Systems at the Jawaharlal Nehru Centre for Advanced Scientific Research and the Indian Institute of Science - November 1999.
75. **Fundamentals of Condensed-Matter Physics** - 4 lectures given at a Course for College Teachers and Students in Swami Ramanand Tirth Marathawada University, Nanded - December 1999.
76. **Numerical Studies of Multiscaling in Models for Fluid Turbulence** - at a Conference on "Physics of Hydrodynamic Turbulence" held at the Institute for Theoretical Physics, University of California, Santa Barbara, USA as part of their Program on the "Physics of Hydrodynamic Turbulence" - February 2000.
77. **Numerical Studies of Multiscaling in Models for Fluid Turbulence** - at a Conference on "Computational Fluid Dynamics" held at the Aeronautical Society of India, Bangalore - August 2000.
78. **Charge Ordering and Related Phase Transitions in the Colossal-Magnetoresistive Manganites** - at

an International Meeting on Strongly Correlated Systems at the Saha Institute of Nuclear Physics, Kolkata, October 2000.

79. **Turbulence** - 6 lectures at the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy in their Diploma Course, April - May 2001.
80. **Semiflexible Equilibrium Polymers: A Self-Assembling Molecular Model** - at an ICTP/UCSB/TWAS Miniworkshop on *Frontiers of Materials Science* at the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, 15-18 May 2001.
81. **Charge Ordering and Related Phase Transitions in the Colossal-Magnetoresistive Manganites** - at the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, 23 May 2001.
82. **Spiral Turbulence and Spatiotemporal Chaos: Characterization and Control in Two Excitable Media**, at the Observatoire de la Côte d'Azur, Nice, France, June 2001.
83. **Spiral Turbulence and Spatiotemporal Chaos: Characterization and Control in Two Excitable Media**, at the IUPAP STATPHYS 21 Conference at Cancun, Mexico, July 2001.
84. **Semiflexible Equilibrium Polymers: Lattice and Continuum and Models** - at the first meeting of the Asian Consortium for Computational Materials Science held at IISc and JNCASR, Bangalore, Dec 2001.
85. **Spiral Turbulence and Spatiotemporal Chaos in Models for Ventricular Fibrillation** - at the Joint Santa Fe Institute and Saha Institute of Nuclear Physics Workshop on Dynamics of Networks and Spatially Extended Systems, Jan 21-23, 2002, Kolkata.
86. **Spiral Turbulence and Spatiotemporal Chaos in Models for Ventricular Fibrillation** - at the Indo-Israeli Workshop on Current Issues in Condensed Matter Physics and Materials Science, Jan 27-30, 2002, Jerusalem, Israel.
87. **Dynamic Multiscaling in Fluid Turbulence: An Overview**, at the Observatoire de la Côte d'Azur, Nice, France, June 2002.
88. **Turbulence: A Statistical Perspective** - Four lectures at the S.N. Bose national Centre for Basic Sciences, March 17-21, 2003, Kolkata.
89. **Towards Quasilagrangian Studies of Dynamic Multiscaling in Fluid Turbulence** - at the Saha Institute of Nuclear Physics International Conference on Unconventional Applications of Statistical Physics, March 20-22, 2003, Kolkata.
90. **Spiral Turbulence and Spatiotemporal Chaos in Some Excitable Media** - at the International Discussion Meeting on the Statistical Mechanics of Threshold Activated Systems, Institute of Mathematical Sciences, Chennai, March 24-26, 2003.
91. **Spatiotemporal Chaos: An Introduction** - at the Nonlinear Dynamics Meeting, Indian Statistical Institute, Kolkata, December 2003.
92. **Spiral Turbulence and Spatiotemporal Chaos in models for Cardiac Arrhythmias** - plenary talk at the First National Conference on Nonlinear Systems and Dynamics, Indian Institute of Technology, Kharagpur, December 2003.
93. **The Varieties of Dynamic Multiscaling in Fluid Turbulence** - contributed talk at STATPHYS 22, the 22^{nd} International Conference of the IUPAP on Statistical Physics, Bangalore - 4-9 July 2004.
94. **Pattern Formation in Cardiac Arrhythmias** - invited talk at the Satellite Meeting (of STATPHYS 22) on Pattern Formation in Nonequilibrium Systems at SN Bose National Centre for Basic Sciences - 11-13 July 2004.
95. **Dynamic Multiscaling in Turbulence** - invited talk at a meeting on Hydrodynamic Turbulence held in honour of Ya.G. Sinai, under the auspices of the Institute Mathematics Initiative, Indian Institute of Science, Bangalore - 6 December 2004.
96. **The Multiscaling of Time-Dependent Structure Functions in Turbulence** - at the International Centre for Theoretical Physics, Trieste, Italy - May 2005.
97. **The Characterisation and Control of Spiral Turbulence in Cardiac Arrhythmias** - at the Department of Physics, University of Sydney, Australia - October 2005.
98. **Manifestations of Drag Reduction in Decaying, Homogeneous, Isotropic Turbulence** - at the Jawaharlal Nehru Centre for Advanced Scientific Research during the "Interdisciplinary materials science, computation and biology" organised with a group from Harvard University - August 2006.

99. **The Multiscaling of Time-Dependent Structure Functions in Turbulence** - at the Lorentz Center, Leiden University, The Netherlands - August 2006.
100. **Dynamo Action in a Shell Model for Magnetohydrodynamic Turbulence** - at the Second UN/NASA Workshop on International Heliophysical Year and Basic Space Science at the Indian Institute of Astrophysics, Bangalore - November 2006.
101. **Six lectures on Turbulence** - at the SERC School on Nonlinear Dynamics and Turbulence held at the Indian Association for the Cultivation of Science, Kolkata - December 2006.
102. **A high-resolution direct numerical siumlation of fluid turbulence with polymer additives** - at the International Conference on High-performance Computing, Bangalore - December 2006.
103. **The Mathematical Modelling of Inhomogeneities in Ventricular Tissue** - at the Conference on Complex Dynamics of Physiological Systems: From Heart to Brain, held at Presidency College, Kolkata, India, 12-14 February 2007.
104. **Manifestations of Drag Reduction by Polymer Additives in Decaying, Homogeneous, Isotropic Turbulence**, Department of Mathematics, University of Nice, France, June 2007.
105. **Dynamic Multiscaling in Turbulence** - at Statphys 23, the International Conference on Statistical Physics of the IUPAP, in Genoa, July 2007.
106. **The Physical Modelling of Cardiac Arrhythmias** - at the Satellite Meeting of Statphys 23 on Progress in Nonlinear Dynamics, at the International Centre for Theoretical Physics, Trieste, Italy, July 2007.
107. **The Mathematical Modelling of Cardiac Arrhythmias** - The DAE Raja Ramanna Award Lecture at the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore - 14 August 2007.
108. **Cardiac Arrhythmias: What can we learn from Computer Simulations?** - Indian Institute of Science Colloquium, Bangalore - January 2008.
109. **MHD Turbulence: What can we learn from simple models?** - Centre de Mathematiques et d'Informatique, Marseille, France - April 2008.
110. **Spiral- and Scroll-Wave Turbulence in Mathematical Models for Cardiac Tissue** at a Workshop in Taiwan - July 2008.
111. **Homogeneous isotropic turbulence with polymer additives** - Symposium StatPhys-Taiwan, Taipei - July 2008.
112. **Homogeneous isotropic turbulence with polymer additives** - At a meeting organised by the Institute Mathematics Initiative, IISc, Bangalore - July 2008.
113. **Homogeneous isotropic turbulence with polymer additives** - The Isaac Newton Institute for Mathematical Sciences, Cambridge University, UK - September 2008.
114. **An Introduction to Turbulence** - S.N. Bose National Centre for Basic Sciences, Kolkata - February 2009.
115. **Turbulence-Induced Melting of a Nonequilibrium Vortex Crystal** - Observatoire de la Côte d'Azur, Nice, France - June 2009.
116. **Lagrangian Turbulence and Transport** - at the meeting of the EU COST Action on Particles and Transport in Turbulence at the Observatoire de la Côte d'Azur, Nice, France - December 2009.
117. **Systematics of the Magnetic-Prandtl-Number Dependence of Magnetohydrodynamic Turbulence** - at the International Conference on Turbulence at the Indian Institute of Technology, Kanpur - December 2009.
118. **Turbulence: The Grand Challenge** - Professor Satish Dhawan Memorial Lecture at the NESP2010, ICTS International Conference on Nonequilibrium Statistical Physics at the Indian Institute of Technology, Kanpur - February 2010.
119. **Turbulence: The Grand Challenge** - TRYST lecture at the Indian Institute of Technology, Delhi - 13 March 2010.
120. **Homogeneous Isotropic Turbulence with Polymer Additives** - Max-Planck-Institut für Dynamik und Selbstorganisation, Göttingen, Germany - 7 May 2010.
121. **Systematics of the Magnetic-Prandtl-Number Dependence of Magnetohydrodynamic Turbulence** - at the Laboratoire Dieudonné, University of Nice - May 2010.
122. **Cardiac Arrhythmias: What can we learn from Computer Simulations?** - under the Genesis series in the Department of Molecular Reproduction Development and Genetics, Indian Institute of Science -

November 2010.

123. **Cardiac Arrhythmias: What can we learn from Mathematical Models?** - at the Indo-French Workshop at the Indian Institute of Science - 7 December 2010.
124. **From Frisch-Parisi Multiscaling to Dynamic Multiscaling** - at the meeting "Tribute to Uriel Frisch: The Turbulence School of Nice" at the Observatoire de la Côte d'Azur, Nice, France - 10 December 2010.
125. **Time scales, persistence, and dynamic mutiscaling in two-dimensional, homogeneous, isotropic fluid turbulence** - Keynote talk at the COST Meeting on Particles in Turbulence, University of Potsdam, Germany - 16-18 March 2011.
126. **Time scales, persistence, and dynamic mutiscaling in two-dimensional, homogeneous, isotropic fluid turbulence** - At the Program on Turbulence, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, USA - late March 2011.
127. **Time Scales, Persistence, and Dynamic Multiscaling in Turbulence** - At Ecole Normale Superieur, Paris - 1 June 2011.
128. **Time Scales, Persistence, and Dynamic Multiscaling in Turbulence** - At NORDITA, Stockholm - 19 October 2011.
129. **Turbulent Flows with Polymer Additives** - at the ICTS Discussion Meeting ICTS Discussion Meeting on Defining Guidelines for Future Extreme Simulations in Turbulence, Indian Institute of Science Bangalore - 16 December 2011.
130. **Eulerian, Lagrangian, and Quasi-Lagrangian studies of Two-dimensional Fluid Turbulence** - at the Program on New Directions in Turbulence at the Kavli Institute for Theoretical Physics China, Beijing - 29 March 2012.
131. **Bose-Hubbard Models: Phases, Transitions, and Patterns** - at the meeting on Quantum Dynamics of Nano-Structured Systems at the University of Augsburg, Germany - 13-14 April 2012.
132. **Energy-spectra Bottlenecks: Insights from Hyperviscous Hydrodynamical Equations** - at the meeting on Mathematics of Particles and Flows at the Wolfgang Pauli Institute, Vienna - 28 May 2012.
133. **Dissipationless Gross-Pitaevskii Turbulence in Two Dimensions** at the IUTAM Meeting on Extreme Events in Turbulence at University College Dublin, Dublin, Ireland - 5 July 2012.
134. **Fluid Turbulence with Polymer Additive** - Organised a Minisymposium on this topic in the Dynamics Days Conference in Gothenburg, Sweden in early September 2012 and delivered an invited talk there on this subject.
135. **Cardiac Arrhythmias: Insights from Computational Studies** - at the Condensed Matter and Biological Systems 13 Conference at Banaras Hindu University 12 January 2013.
136. **Homogeneous, Isotropic Fluid Turbulence with Polymer Additives** - at the Particles in Turbulence 2013 Meeting in the Technical University, Eindhoven, The Netherlands, 2 July 2013.
137. **Systematics of Turbulence in the Dissipationless, Unforced, 2D, Fourier-Truncated Gross-Pitaevskii Equation**- at the 14th European Turbuelnce Conference, 1–4 September 2013, Lyon, France.
138. **Particles in Turbulence: Time-dependent Correlation Functions and Persistence-time Statistics** - at the TRANSPORT OF PARTICLES IN TURBULENT FLOWS: EXPERIMENTAL, COMPUTATIONAL AND THEORETICAL INVESTIGATIONS, 15 OCTOBER, 2013, Bangalore.
139. **Turbulence in Two Dimensions: Fluids, Superfluids, Conducting Fluids, and Polymeric Fluids** - at Ecole Normale Superieur, Paris, 26 March 2014.
140. **Turbulence in Two Dimensions: Fluids, Superfluids, Conducting Fluids, and Polymeric Fluids** - at Ecole Normale Superieur, Lyon, 7 April 2014.
141. **Turbulence in Two Dimensions: Fluids, Superfluids, Conducting Fluids, and Polymeric Fluids** - at University of Roma "Tor Vergata", Rome, 6 May 2014.
142. **Statistical Properties of Inertial-particle Trajectories in Turbulent Flows** - NORDITA, Sweden, 18 June 2014.
143. **Cardiac Arrhythmias: What can we learn from mathematical models?** - at Mount Carmel College, Bangalore, 26 November 2014.
144. **Particles and Fields in Superfluids: Insights from the Two-dimensional Gross-Pitaevskii Equation** - at the 15th European Turbulence Conference, 25-28 August 2015, Technical University, Delft, The

Netherlands

145. **Cardiac Arrhythmias: What can we learn from mathematical models?** - at the JNCASR-NNMCB 'Program on Mathematical Biology' on 11 September 2015, at the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore.
146. **Turbulence in Binary-fluid Mixtures: Multifractal Droplet Dynamics and Coarsening Arrest** - at the International Meeting in Growing Length Scale Phenomena, 8-10 October 2015, at the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore.
147. **Explorations of the statistical properties of particles in turbulent flows** - at the Indian Statistical Physics Community Meeting, International Centre for Theoretical Sciences, Bangalore, 13 February 2016.
148. **Cahn-Hilliard-Navier-Stokes Turbulence** - at the STATPHYS 26, IUPAP meeting in Lyon, France, 18 July 2016.
149. **Cahn-Hilliard-Navier-Stokes Turbulence** - at the Advances in Geophysical and Astrophysical Turbulence Summer School at the Institut d'Etudes Scientifiques Cargese, France, 26 July 2016.
150. **Turbulence in Cahn-Hilliard binary-fluid mixtures** - at the 24th International Congress on Theoretical and Applied Mechanics, Palais des Congres, Montreal, Canada, 24 August 2016.
151. **Cahn-Hilliard-Navier-Stokes Turbulence** - at the Department of Mathematics, University of Toronto, Toronto, Canada, 26 August 2016.
152. **Antibubbles: Insights from the Cahn-Hilliard-Navier-Stokes equations** - at the Indian Statistical Physics Community Meeting, International Centre for Theoretical Sciences, Bangalore, 18 February 2017.
153. **A Regularity Criterion And Computations For Solutions Of The Three-Dimensional Cahn-Hilliard-Navier-Stokes Equations** - at the 16th European Turbulence Conference 2017, KTH, Stockholm, Sweden, 22 August 2017.
154. **Particle-track geometries in turbulent flows** - at the Simons Center for Geometry Physics Stony Brook University, USA, 18 October 2017.
155. **Explorations of the Statistical Properties of Turbulence Inspired by the Work of Professor K.R. Sreenivasan** - at the Frontiers in Turbulence - KRS70 at Denver Symposium Denver, USA, 17 November 2017.
156. **An Introduction to Homogeneous Isotropic Turbulence in Fluids and Binary-Fluid Mixtures** - at the Turbulence from Angstroms to light years Meeting, International Centre for Theoretical Sciences, Bangalore, 20 January 2018.
157. **Tracy-Widom and Baik-Rains Distributions in the Spatiotemporally Chaotic state of the one-dimensional Kuramoto-Sivashinsky equation** - at the Indian Statistical Physics Community Meeting, International Centre for Theoretical Sciences, Bangalore, 16 February 2018.
158. **Cahn-Hilliard-Navier-Stokes Turbulence: Physics, Numerical Simulations, and Mathematics** - at the 5th International Conference on Mathematical Theory of Turbulence via Harmonic Analysis and Computational Fluid Dynamics, Nagoya University, Japan, 12 March 2018.
159. **Cardiac Arrhythmias: What can we learn of Mathematical Models for Cardiac Tissue?** - at IFISC, Campus Universitat de les Illes Balears Palma, Mallorca, Spain, 30 May 2018.
160. **Universal properties of the spatiotemporally chaotic state of the one-dimensional Kuramoto-Sivashinsky equation** - at Universality in random structures: Interfaces, Matrices, Sandpiles, International Centre for Theoretical Sciences, Bangalore, 30 Jan 2019.
161. **Smart Swimmers in Turbulent Flows** - at the Université Côte d'Azur, Nice, France, 5 February 2019.
162. **Smart Swimmers in Turbulent Flows** - at the Indian Statistical Physics Community Meeting, International Centre for Theoretical Sciences, Bangalore, 14 Feb 2019.
163. **The formation of compact objects at finite temperatures in a self-gravitating bosonic system** - at the Université Côte d'Azur, Nice, France, 11 June 2019.
164. **Particles and Fields in Superfluid Turbulence** - at the International Symposium 2019 From Pattern Formation to Turbulence, Kloster Banz, Bavaria, Germany, 17-21 June 2019.
165. **Particles and Fields in Superfluid Turbulence** - at a meeting on Vortex Dynamics, Turbulence AND Related Phenomena in Quantum Fluids at IIP, Natal, Brazil 1-5 July 2019.
166. **Universal properties of the spatiotemporally chaotic state of the one-dimensional Kuramoto-**

Sivashinsky equation - at the IUPAP StatPhys 27 Conference in Buenos Aires, 11 July 2019.

167. **Path-Planning Smart Swimmers in Turbulent Flows** - at the Eurpean Turbulence Conference 17, Turin, Italy, 4 September 2019.
168. **The formation of compact objects at finite temperatures in a self-gravitating bosonic system** - at a meeting on Universal features of hydrodynamical, optical and wave turbulence, at the Université Côte d'Azur, Nice, France, 9-12 September 2019.
169. **Statistical Properties of Hall Magnetohydrodynamics and Magnetohydrodynamics Turbulence: An Overview** - at the Conference on Plasma Simulation (CPS) - 2020 Institute for Plasma Research, Bhat, Gandhinagar, India 23 January 2020.
170. **Particles and Fields in Partial-differential-equation Models for Fluid and Superfluid Turbulence** - Colloquium at IISER Pune, delivered online over Zoom, 31 August 2020.
171. **Life-Threatening Cardiac Arrhythmias: What Can We Learn from Numerical Studies of Mathematical Models for Cardiac Tissue?** Online Webinar: Flash Backend Innovation Summit, Western Digital, Penang, 1 December 2020
172. **Multiscaling in Randomly Forced Hydrodynamical Equation** - at the TURBULENCE: PROBLEMS AT THE INTERFACE OF MATHEMATICS AND PHYSICS (ONLINE) Meeting, International Centre for Theoretical Sciences, Bangalore, 18 December 2020.
173. **Cahn-Hilliard-Navier-Stokes Turbulence: An Introduction** - at the Layering in Atmospheres, Oceans and Plasmas (ONLINE) Program, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, 2 February 2021.
174. **Life-Threatening Cardiac Arrhythmias: What Can We Learn from Numerical Studies of Mathematical Models for Cardiac Tissue?** Science Academies Online Lecture Workshop on Trans-disciplinary Areas of Research and Teaching Deen Dayal Upadhyaya College, University of Delhi, 11 March 2021
175. **Cahn-Hilliard-Navier-Stokes Turbulence: An Introduction** - at the SM Chitre symposium on Frontiers in Astrophysics and Fluid Dynamics held online (UM-DAE-Centre for Excellence in Basic Sciences University of Mumbai, Mumbai, India) 6-8 May 2021
176. **Particles and Fields in Binary- and Ternary-Fluid Turbulence** - at the 5^{th} Asia-Pacific Conference on Plasma Physics (ONLINE) AAPPS DPP-2021, 28 September 2021.
177. **Binary- and Ternary-Fluid Turbulence: An Introduction** - at the TSU@25 Conference (partly online) at the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, 28 October 2021.
178. **An Introduction to Cahn-Hilliard-Navier-Stokes Turbulence** - at Current Trends in Non-Equilibrium Physics School of Physical Sciences, Jawaharlal Nehru University, New Delhi, 23 November 2021.
179. **From Magnetohydrodynamic (MHD) to Hall MHD Turbulence: An overview of statistical properties** - Part of Online Workshops (Type A) "Statistical Nature of Hall MHD Turbulence" at Research Institute of Mathematical Sciences (RIMS) in Kyoto University, Japan - 2 December 2021.
180. **Rotating self-gravitating Bose-Einstein condensates with a crust: A model for pulsar glitches** - Statistical Physics: Recent advances and Future directions (ONLINE) ICTS TIFR, Bangalore, 14-15 February 2022.
181. **Self-gravitating bosonic systems and a minimal model for pulsar glitches** - Department of Physics, Indian Institute of Science, 20 April 2022.
182. **Insights from a pseudospectral study of a potentially singular solution of the three-dimensional axisymmetric incompressible Euler equation** - Accademia dei Lincei, Rome, Italy, 4 October 2022.
183. **The 3D Axisymmetric Euler Equation: A pseudospectral investigation of a (potential) finite-time singularity and thermalization** - TURBULENCE: PROBLEMS AT THE INTERFACE OF MATHEMATICS AND PHYSICS, ICTS TIFR, Bangalore, 19 January 2023.
184. **Multi-phase Fluid Flows: The Cahn-Hilliard Navier-Stokes Framework** - 8TH INDIAN STATISTICAL PHYSICS COMMUNITY MEETING, ICTS TIFR, Bangalore, 3 February 2023.
185. **The 3D Axisymmetric Euler Equation: A pseudospectral investigation of a (potential) finite-time singularity and thermalization** - Nagoya Institute of Technology, Nagoya, Japan, 19 February 2023.
186. **The 3D Axisymmetric Euler Equation: A pseudospectral investigation of a (potential) finite-time singularity and thermalization** - Plenary Lecture at Perspectives in Nonlinear Dynamics 2023, Indian

Institute of Technology, Madras, 1 August 2023.

187. **Energy decay in fluid and Burgers turbulence: New Insights** - At Statphys 28, University of Tokyo, Japan, 11 August 2023.
188. **Elastic and Binary-fluid Turbulence: An overview** - Plenary Lecture at 7th Asia-Pacific Conference on Plasma Physics, Port Messe, Nagoya, Japan, 14 November 2023.
189. **Self-gravitating bosonic and axionic systems and a minimal model for pulsar glitches** - Plenary Lecture at Frontiers in Statistical Physics, Raman Research Institute, Bangalore, 4 December 2023.
190. **Self-gravitating bosonic and axionic systems and a minimal model for pulsar glitches** - Online Lecture at Fluid Flows and Turbulence Indian Institute of Technology, Kharagpur, 12 December 2023.
191. **The Cahn-Hilliard-Navier-Stokes framework for turbulence in multi-phase flows** - at FIELD THEORY AND TURBULENCE ICTS-TIFR, Bangalore, 18 December 2023.
192. **Self-gravitating bosonic and axionic systems and a minimal model for pulsar glitches** - at TURBULENCE AND VORTEX DYNAMICS IN 2D QUANTUM FLUIDS ICTS-TIFR, Bangalore, 26 February 2024.
193. **Self-gravitating bosonic and axionic systems and a minimal model for pulsar glitches** - at Turbulent Quantum Fluids, NYU Abu Dhabi, 6-8 March 2024.
194. **Machine-learning-based estimation of critical exponents: Two-dimensional Ising, Metamagnet, and Blume-Capel Models:** - 9TH INDIAN STATISTICAL PHYSICS COMMUNITY MEETING, ICTS TIFR, Bangalore, 4 April 2024.
195. **Self-gravitating bosonic and axionic systems and a minimal model for pulsar glitches** - at the Isaac Newton Institute, Cambridge University, UK, 18 June 2024.
196. **The Solar Wind And Statistical Properties of Three-Dimensional Hall Magnetohydrodynamics Turbulence** - Plenary Lecture at the 21st International Congress on Plasma Physics, 9 Septembe 2024, University of Ghent, Belgium.
197. **Turbulence at low Reynolds Numbers: Some Examples** - at the INDO-FRENCH WORKSHOP ON CLASSICAL AND QUANTUM DYNAMICS IN OUT OF EQUILIBRIUM SYSTEMSi, ICTS-TIFR, Bangalore, 18 December 2024.
198. **Emergent turbulence and coarsening arrest in active-spinner fluids:** - 10TH INDIAN STATISTICAL PHYSICS COMMUNITY MEETING, ICTS TIFR, Bangalore, 23 April 2025.
199. **Large-scale multifractality and lack of self-similar decay for Burgers and 3D Navier-Stokes turbulence:** - at the Observatoire de la Côte d-Azur, Nice, France, 9 May 2025.
200. **The Cahn–Hilliard–Navier–Stokes framework for multiphase fluid flows: laminar, turbulent and active:** - at the Festival de Théorie 2025, Aix-Marseille Université, Aix-en-Provence, Bouches du Rhône, 10 July 2025.

Conferences Organised

1. *Open Problems in Classical, Condensed-Matter Physics* at the Indian Institute of Science, Bangalore, India - April 1989.
2. Indo-USSR Conference on *Phase Transitions and Allied Phenomena* held at the Indian Institute of Science, Bangalore, India - February 1990.
3. Workshop on *Complex Fluids* held at the Indian Institute of Science, Bangalore, India under the auspices of the Jawaharlal Nehru Centre for Advanced Scientific Research - March 1990.
4. *Winter School on Some Recent Advances in Quantum Many Body Physics* - at the Indian Institute of Science, Bangalore in January 1995. Bangalore - January 1996.
5. *Disorder and Interactions in Electron Systems*, at the Indian Institute of Science, Bangalore - January 1996.
6. *Discussion Meeting on Novel Properties of the Colossal Magnetoresistive Oxides* held at the Indian Institute of Science under the auspices of the Jawaharlal Nehru Centre for Advanced Scientific Research, January 1998.
7. *International Discussion Meeting on "Recent Trends in Nonequilibrium Statistical Physics"* - at the Jawaharlal Nehru Centre for Advanced Scientific Research and the Indian Institute of Science, Bangalore -

November 1999.

8. Secretary of the Organising Committee and member of the Steering Committee for the *22nd IUPAP International Conference on Statistical Physics STATPHYS 22*, held at the National Science Seminar Complex, Indian Institute of Science, Bangalore, 4-9 July 2004.
9. *Indo-French Workshop on "Anomalous Scaling in Turbulence and Statistical Physics"* - organised with U. Frisch and D. Mitra at Beaulieu-sur-mer, France, 6-10 June 2005.
10. *Workshop on Turbulence* - organised with R. Govindarajan and G. Rangarajan under the Institute Mathematics Initiative of the Indian Institute of Science, Bangalore: 7-31 January 2008.
11. *ICTS Discussion Meeting on Defining Guidelines for Future Extreme Simulations in Turbulence* - organised with Uriel Frisch and Jaywant Arakeri from 12-16 December 2011 at the Indian Institute of Science, Bangalore.
12. *Discussion Meeting on TRANSPORT OF PARTICLES IN TURBULENT FLOWS: EXPERIMENTAL, COMPUTATIONAL AND THEORETICAL INVESTIGATIONS* - organised with S.S. Ray and J. Bec from 14-18 October 2013, Bangalore.
13. *Indian Statistical Physics Community Meeting 2014* - organised with A. Dhar, K. Jain, S.S. Ray, and S. Sabhapandit from 1-3 February 2014.
14. *Indian Statistical Physics Community Meeting 2015* - organised with A. Dhar, K. Jain, S.S. Ray, and S. Sabhapandit from 13-15 February 2015.
15. *Indian Statistical Physics Community Meeting 2016* - organised with A. Dhar, K. Jain, S.S. Ray, and S. Sabhapandit from 12-14 February 2016.
16. *Indian Statistical Physics Community Meeting 2017* - organised with R. Bandyopadhyay, A. Dhar, K. Jain, S.S. Ray, S. Sabhapandit, and P. Sharma from 17-19 February 2017.
17. *Geometrical and Statistical Fluid Dynamics* - organised with U. Frisch and K. Khanin at the Simons Center for Geometry and Physics, Stony Brook University, USA from 2-27 October 2017.
18. *Indian Statistical Physics Community Meeting 2018* - organised with R. Bandyopadhyay, A. Dhar, K. Jain, S.S. Ray, S. Sabhapandit, and P. Sharma from 16-18 February 2018.
19. *Indian Statistical Physics Community Meeting 2019* - organised with R. Bandyopadhyay, A. Dhar, K. Jain, S.S. Ray, S. Sabhapandit, and P. Sharma from 16-18 February 2019.
20. *Indian Statistical Physics Community Meeting 2020* - organised with R. Bandyopadhyay, A. Dhar, K. Jain, S.S. Ray, S. Sabhapandit, and P. Sharma from 19-21 February 2020.
21. *Turbulence: Problems at the Interface of Mathematics and Physics* - to be organised with U. Frisch and K. Khanin, at ICTS Bangalore, but online, because of the pandemic, from 7-18 December 2020.
22. *Served on the Program Committee for AAPPS-DPP 2021; http://aappsdpp.org/DPP2021/*
23. *One of the organisers of the Workshop "Stochastic Approaches to Turbulence in Hydrodynamical Equations: New Challenges at the Mathematics-Physics Interface" at the Banff International Research Station, Canada* 27 February - 3 March 2022.
24. *One of the organisers of the Programme "Mathematical aspects of turbulence: where do we stand?" at the Isaac Newton Institute for Mathematical Sciences, Cambrdge, UK* 4 January 2022 to 24 June 2022.
25. *Turbulence: Problems at the Interface of Mathematics and Physics* - organised with U. Frisch and K. Khanin, at ICTS Bangalore, from 16-27 January 2023.
26. *Indian Statistical Physics Community Meeting 2023* - organised with R. Bandyopadhyay, A. Dhar, K. Jain, S.S. Ray, S. Sabhapandit, and P. Sharma from 1-3 February 2023.
27. *One of the organisers of the Programme "Anti-diffusive dynamics: from sub-cellular to astrophysical scales" at the Isaac Newton Institute for Mathematical Sciences, Cambrdge, UK* 8 January to 28 June 2024.
28. *Indian Statistical Physics Community Meeting 2024* - organised with R. Bandyopadhyay, A. Dhar, K. Jain, S.S. Ray, S. Sabhapandit, and P. Sharma from 3-5 April 2024.
29. *Indian Statistical Physics Community Meeting 2024* - organised with R. Bandyopadhyay, A. Dhar, K. Jain, S.S. Ray, and S. Sabhapandit, from 23-25 April 2025.

Referees

1. Professor Uriel Frisch
   Directeur de Recherche Emérite
   Élu Membre de l'Académie des Sciences (Elected Member French Academy of Sciences)
   CNRS, Lab. Lagrange, Observatoire de la Côte d'Azur
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   06304 NICE Cedex 4, Francea
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2. Professor T.V. Ramakrishnan, FASc, FNA, FTWAS, FRS
   Foreign Associate, de l'Académie des Sciences (Paris), France
   Distinguished Associate, Centre for Condensed Matter Theory
   Department of Physics
   Indian Institute of Science
   Bangalore - 560012, India
3. Professor K.R. Sreenivasan
   Elected Fellow of US National Academy of Sciences
   US National Academy of Engineering
   American Academy of Arts and Sciences
   Accademia die Lincei in Italy
   IASc, INSA, TWAS
   Dean Emeritus of NYU Tandon School of Engineering
   The Eugene Kleiner Professor for Innovation in Mechanical Engineering
   Professor of Physics (Faculty of Arts and Science)
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