

Physics Society

1) FLAGSHIP EVENTS

1.1) Popli Memorial Lecture Series

Title of the Talk: Physics of Cellular Time

Speaker: Shaon Chakrabarti, Assistant Professor,

Simons Centre for the Study of Living Machines,

National Centre for Biological Sciences, TIFR

Date and Time: 12:30pm, 26, 27,28 February 2024

Mode/Venue: NPLT, Science Block

Number of Attendees: 82



1.2) Annual Meera Memorial Paper Reading Competition

Participating Teams: 15

Date and Time: 2pm — 18th and 19th April 2024

Mode and Venue: NPLT, Science Block

Judges: Dr. Sanjay Kumar, Dr. Akshay Rana, and Anupam Chauhan

2) Feynman Club

Overall, the Feynman Club has had a successful year. The club's activities have helped to foster a culture of scientific temper and rational skepticism amongst students and the council members are looking forward to continuing their efforts to promote science and research in the coming year.

S. No.	Date	Speaker	Topic
1	4 September 2023	Mr. Rajat Chandra Mishra University of Strasbourg	Mathematical Models of Neurons
2	7 November 2023	Dr. Dhruva J. Saikia IUCAA, Pune	Black Holes in Our Universe
3	9 November 2023	Dr. Prakash Arumugasamy The Pennsylvania State University	Exoplanets
4	24 January 2024	Dr. Swagat S. Mishra University of Nottingham	Primordial Black Holes
5	30 April 2024	Dr. Patrick Das Gupta, University of Delhi	Supermassive Blackholes
6	2 May 2024	Dr. Sanjay Kumar, Department of Electronic and Electrical Engineering, UCL	Quantum Physics in Restricted Dimensionality

3) Problem Solving Club

The Problem-Solving Session kicked off by inviting volunteers to design problems based on their passions or everyday encounters. Our first Problem Set included:

1. "Zip Lining": Exploring the dynamics of a slack zip rope using Lagrangian Mechanics and the Fermat principle.
2. "Shallow Water Model": Investigating fluid dynamics.

Students were introduced to new tools and concepts in interactive sessions. Additionally, the Problem Solving Club, with Journal Heads' support, published quiz sets to keep students engaged.

4) Astronomy Club

- **Sky Viewing:** A super blue moon observation session was held in the SCR lawns, open to the entire college. A Celestron telescope was used, attracting a diverse audience from various departments.
- **Chandrayaan 3 Screening:** A live screening of the third Chandrayaan mission was held in OPLT, open to all departments.
- **Non-Dimensionalization Session:** An online session introduced first-year students to non-dimensionalization and the Euler method for solving differential equations.
- **Astro Ed Session:** "Life Cycle of Stars" covered the basics of astronomy, from protostar formation to black hole creation, introducing students to the evolution of stars.

Objectives Achieved

At the beginning of the academic year, we set the objective of the college Physics Society to foster a deeper understanding and appreciation of physics among students through engaging activities, collaborative learning, and research opportunities. The society aims to provide a platform for students to explore advanced concepts, discuss recent developments, and apply theoretical knowledge through experiments and projects. Additionally, it seeks to create a community where members can share their passion for physics, network with professors, and prepare for future careers in the field. We feel that we have achieved our objectives quite satisfactorily. Our Annual Physics Fest "Principia" could not be organized this year but the rest of the events were organized successfully.