



National Institute of Technology Rourkela

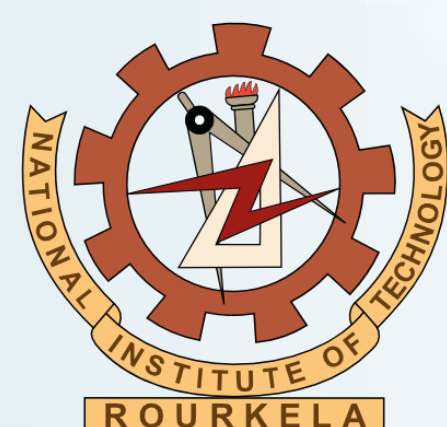
WORKSHOP

on

**“Multidisciplinary Approach to
Understand the Mysteries of our
Universe”**

17th – 21st July 2023

(Hybrid Mode)



Organized by

Department of Physics and Astronomy
National Institute of Technology Rourkela,
Sundargarh, Odisha, India - 769008

Sponsored by

Science & Engineering Research Board
(SERB)



About the Institute

National Institute of Technology (NIT) Rourkela is one of the premier institutions for teaching, learning and research funded by the Government of India. The institute was established as Regional Engineering College Rourkela on 15 August 1961. The Government of India has elevated it to a deemed University under the name of National Institute of Technology Rourkela in 2002. It has been recognized as an Institute of National Importance by NIT act 2007. NIT Rourkela has become a preferred destination for students to pursue studies and research in the field of engineering, science and architecture. More than 390 faculty members and 7000 students are involved in the teaching and learning processes across the 20 departments.

NITR Ranking - 2023

37 NIRF Overall	16 NIRF Engg.	29 NIRF Research	281-290 QS Asia
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Department of Physics and Astronomy

Post-Graduate Department of Physics and Astronomy at National Institute of Technology Rourkela has its humble beginning since 1965, the very inception of Regional Engineering College, Rourkela in 1961 under the joint venture of the central Government of India and State Government of Odisha. Currently the Department of Physics and Astronomy at NIT Rourkela is actively involved in teaching and research in various areas like Astronomy & Astrophysics, Soft condensed matter physics, Bio-physics, Theoretical condensed matter physics, Non-linear dynamics, Multiferroic materials, Dielectrics, Ferroelectrics, Thin Films, Polymers composite, Phase transition, Low temperature physics, Magnetic materials, Carbon nanotubes, Energy Storage Devices, Graphene and High temperature superconductor. Faculties of the Astronomy and Astrophysics group are working in the domain of stellar astrophysics, extragalactic astrophysics, solar physics, gravitational waves and cosmology. Academic programs such as 5-Year Integrated M.Sc, 2-Year MSc, M.Tech. by Research and PhD are offered by the department. Currently more than 200 students are enrolled for master and doctoral studies in the department.



About the Workshop

Astronomy is one of the oldest branches of science. Recent theoretical and observational studies have largely advanced our understanding of the universe. Present workshop is intended to briefly address and discuss the recent development in the following areas:

- ▶ Stellar Astrophysics
- ▶ Solar Physics
- ▶ Active Galactic Nuclei
- ▶ Astroparticle Physics
- ▶ Particle detectors
- ▶ Astronomical Instrumentation
- ▶ Dark Matter and Dark energy

During the workshop, in addition to lectures, dedicated hands on sessions will be conducted to learn modern state-of-the-art modelling tools/packages used in astronomy and astrophysics.

Target Participants

The workshop is intended to provide an overview and recent development in different areas of astronomy, astrophysics and astro-particle physics. This workshop will be beneficial for UG/PG/PhD students/researchers/faculties interested in astrophysics.

Please contact the convener for any query or information related to the workshop.

Invited Speakers

- ▶ Prof. A. Gangopadhyay, Hiroshima University (Japan)
- ▶ Prof. Bhuvan Joshi, PRL (India)
- ▶ Dr. Kalyan Kumar, INFN-Astronomical Observatory of Padova (Italy)
- ▶ Dr. Kamlesh Rajpurohit, Harvard University (USA)
- ▶ Prof. Lakhwinder Singh, CUSB (India)
- ▶ Prof. Michel Cure, University of Valparaiso (Chile)
- ▶ Prof. Pankaj Kushwaha, IISER Mohali (India)
- ▶ Dr. Prakhar Garg, Yale University (USA)
- ▶ Dr. Santosh Joshi, ARIES (India)
- ▶ Prof. Venktesh Singh, CUSB (India)
- ▶ Prof. Wageesh Mishra, IIA (India)
- ▶ Dr. Yogesh Chandra Joshi, ARIES (India)

Registration Link

The last date to submit the registration form is **7th July 2023**. The selected participants will be informed through email by 10th July 2023. The Workshop duration is from 17 July to 21 July 2023. The link of registration form is mentioned below:

<https://forms.gle/AKW3k8x1sKSpdpm7A>



Accommodation

Accommodation can be arranged for outside participants at NIT Rourkela guesthouses and hostel on a payment basis (Twin sharing) based on availability. Free hostel accommodation will be provided to limited number of students for offline participation. No TA/DA will be provided.

ORGANIZING COMMITTEE



Patron

Prof. K. Umamaheshwar Rao
Director, National Institute of Technology, Rourkela

Chairman

Prof. Prakash Nath Vishwakarma
Professor & Head of the Department
Department of Physics and Astronomy



Convener

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Co-Convener

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Assistant Professor,
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Student Coordinators

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Pinku Routray, Sayantan Ghosh, Probit J.
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