Global Initiative of Academic Networks (GIAN) Course | Stellar Pulsation : Probing the Interior of Stars

शिक्षा मंत्रालय
MINISTRY OF
EDUCATION
सत्यमेव जयते

GIAN
GLOBAL INITIATIVE OF ACADEMIC NETWORKS

National Institute of Technology Rourkela

GIAN course

on

Stellar Pulsation: Probing the Interior of Stars

23 December 2024 to 02 January 2025

Organized by

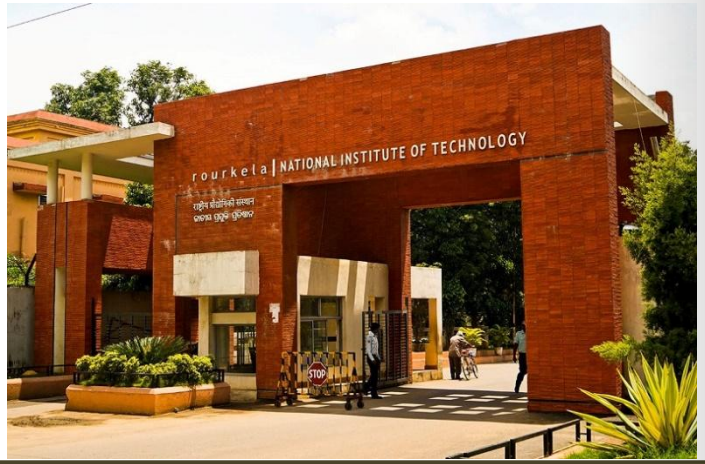
Department of Physics and Astronomy
National Institute of Technology Rourkela,
Sundargarh, Odisha, India - 769008.

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. In 2002, the Government of India elevated it to the status of a National Institute of Technology (NIT). It was later recognized as an Institute of National Importance under the 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 400 faculty members and 7700 students are involved in the teaching and learning processes across the 20 departments.

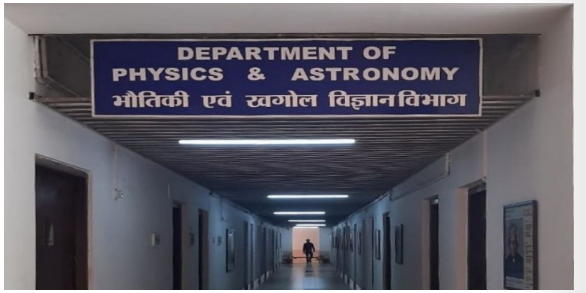
NITR Rankings - 2024

34	19	30	317
NIRF Overall	NIRF Engg.	NIRF Research	QS Asia



Department of Physics and Astronomy

The 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, Biophysics, theoretical condensed matter physics, non-linear dynamics, multiferroic materials, dielectrics, ferroelectrics, thin films, polymers composite, 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, Galactic & extragalactic astrophysics, solar physics, gravitational waves and cosmology. Academic programs such as 5 year Integrated MSc, 2 year MSc, MTech by Research and PhD are offered by the department. Currently more than 200 students are enrolled for the master and doctoral studies in the department.



Link for Registration: https://forms.gle/LYNoaVPMe6McXKtc9

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About the Course

Intrinsic variability in stellar objects, spanning timescales from 100 days in giant stars to milliseconds in neutron stars, is a well-established phenomenon, observed in nearly all stars given sufficient sensitivity. This course aims to facilitate participants with a comprehensive understanding of stellar pulsation theory and its practical applications in determining stellar properties.

Course Objectives

- Basic physics of stellar oscillations and stability.
- General strategy for theoretical treatment of stellar pulsations.
- The various approximations in use and their range of validity.
- Various stellar instabilities and their physical mechanisms.

Target Participants

- **Students of all levels (Bachelor, Master and PhD students).**
- **Faculty/Staff members working in the relevant areas.**

Registration link:

https://forms.gle/LYNoaVPMe6McXKtc9

Last Date of Registration: 02 December 2024

Participation Fees:
Participants from abroad : US $100
Faculty/Scientist: INR 2000
Students: INR 1000 (Limited fee waiver available)

After receiving confirmation email for participation in the course, participants can directly deposit the fee to the following account:

Account No: 10138951784,
Ac/Name: CONTINUING EDUCATION NIT ROURKELA,
IFSC No: SBIN0002109, Branch: State Bank of India, NIT Campus Rourkela.

Accommodation: No TA, DA will be provided to the participants. Participants have to arrange their own accommodation and food. However, limited shared accommodation may be made available (subject to availability) on a subsidized rate in the Institute Guesthouse / Guest Rooms of Hostels on request on a first come first serve basis.

THE FACULTY

Prof. Dr. Wolfgang Glatzel
Institute for Astrophysics & Geophysics
University of Göttingen, Germany

Dr. Abhay Pratap Yadav
Department of Physics & Astronomy
National Institute of Technology
Rourkela, India

Patron
Prof. K. Umamaheshwar Rao
Director, NIT Rourkela

Chairman
Prof. Jyoti Prakash Kar
HoD, Dept. of Physics & Astronomy
NIT Rourkela

COURSE COORDINATORS

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For any query or information related to the course, please write to: yadavap@nitrkl.ac.in

https://gian.iith.ac.in