



Inter-University Centre for Astronomy and Astrophysics  
(IUCAA), Pune, sponsored a three-day workshop on  
**GRAVITATION AND COSMOLOGY**



AUGUST 6–8, 2026

Organised by,

Department of Physics (UG & PG), Prabhat Kumar College, Contai,  
West Bengal, India

### Organizing Committee

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Dr Soumya Jana, Sitananda College, Nandigram,  
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Mr Samit Ganguly, Haldia Government College,  
Haldia, WB

[Registration Link](#)

*This workshop is intended for final-year B.Sc. and  
M.Sc. students of Physics and Mathematics with some  
1<sup>st</sup> year Ph.D. students of related topics*

Limited travel support may be provided, depending on the availability of funds.

For any query: Email to: [iucaapkcworkshop@gmail.com](mailto:iucaapkcworkshop@gmail.com)

#### IMPORTANT DATES

Registration Deadline: 10 June 2026

Intimation to Selected Participants: 17 June 2026

## INTRODUCTION

The Workshop on Gravitation and Cosmology aims to familiarize students and young researchers to the recent developments and emerging research fields in gravitation, astrophysics and cosmology through expert lectures and interactive academic sessions. The program is specifically developed for final year B.Sc. and M.Sc. students, research scholars and those who want to do research to get exposed to modern issues such as general relativity, black hole physics, gravitational waves, dark matter, dark energy and observational cosmology. The workshop will offer an interactive environment for participants to communicate with specialists, share scientific ideas and exhibit their research interests or preliminary work. It also aims to promote academic collaboration and to motivate the participants to pursue higher studies and research in current fields of theoretical and observational cosmology. The workshop aims to encourage greater scientific curiosity and a better understanding of the cosmos and its basic physical principles via sharing knowledge and activities of discussions.

## OBJECTIVES

The workshop aims:

- Introduction to Gravitation and Cosmology
- Fundamental principles of gravitational waves and lensing
- Black Hole Physics, Dark Matter, Dark Energy, and Modern Research Directions
- Provide hands-on experience with real observational data
- Train participants in modern computational and data-analysis techniques
- Encourage engagement from students at institutions with emerging research activity

## FORMAT

This three-day, in-person workshop will include:

- Expert lectures
- Guided scientific discussions
- Hands-on computational training sessions
- A short project component with participant presentations

Pre-recorded introductory lectures will be shared in advance to facilitate interactive discussions and problem-solving during the workshop.

Prior familiarity with Python programming is required. Participants are requested to bring their own laptops.

**IUCAA, Pune:** The Inter-University Centre for Astronomy and Astrophysics IUCAA, an autonomous institution under UGC, promotes research and development in gravitation, cosmology, astronomy and astrophysics across Indian universities. It serves as a centre of excellence through core academic programmes (Research, PhD, workshops, and GMRT access) and visitor programmes (teacher-refresher courses, associate programmes, and university outreach).

**Department of Physics, P. K. College, Contai:** The Department of Physics at Prabhat Kumar College was established in 1947 with the I.S.C. course. The Honours programme was introduced in 1963, followed by the P.G. programme in 2006. The department has consistently maintained a strong academic tradition and serves students from Contai and neighbouring districts. Since 2019, Ph.D. programmes have been conducted through the College's Research Centre of Natural Sciences and Research Centre of Humanities and Social Sciences under the aegis of Vidyasagar University.