



BITS Pilani
Pilani Campus



**Inter-University
Centre for Astronomy
and Astrophysics**

Workshop on **GRAVITATIONAL WAVES & LIGO INDIA**



15th Oct. - 19th Oct. 2024

Organised by:

Birla Institute of Technology & Science, Pilani (BITS Pilani)

The Inter-University Centre for Astronomy and Astrophysics (IUCAA)

ABOUT THE WORKSHOP

The era of gravitational wave astronomy has revolutionized our understanding of the universe. This workshop endeavors to instill a deep understanding of gravitational wave physics and data analysis techniques among participants, equipping them with the skills needed to understand and explore these groundbreaking discoveries. Featuring a series of lecture sessions covering the fundamentals of gravitational wave physics: general relativity, source modeling, basics of search and parameter estimation and detectors, will furnish participants with a profound understanding of the theoretical foundations and recent methodologies underpinning gravitational wave research. The heart of this workshop lies in its practical sessions. From data analysis to instrumentation, they will gain tangible skills to contribute meaningfully to ongoing and future research. With LIGO-India set to become a critical player in the global gravitational wave network, this workshop is a unique opportunity for participants to connect with this ambitious project. They will learn about the cutting-edge technologies and research opportunities it offers.

ABOUT THE ORGANIZING INSTITUTES

Birla Institute of Technology & Science, Pilani (BITS Pilani) is one of the leading national research and educational centers in science and technology, and has been ranked amongst the top institutes consistently, by both governmental and private ranking agencies for its innovative processes and capabilities that have enabled it to impart quality education and cutting edge research to emerge as the best private science and engineering institute in India. BITS Pilani continuously strives to cater to the expectations of its brilliant student cohort and has always adopted pedagogical interventions relevant to the time. In recognition of the high standard that BITS Pilani strives to uphold, University Grant Commission, in 2018, has declared it as an "Institute of Eminence" (IoE).

The Inter-University Centre for Astronomy and Astrophysics (IUCAA) is an autonomous institution under the University Grants Commission (UGC) of India to promote the nucleation and growth of active groups in astronomy and astrophysics at Indian universities. IUCAA's activities fall under two broad programmes: core academic programmes, which include basic research, the Ph.D. programme, advanced research workshops and schools, the giant metre-wave radio telescope, and guest observer programmes; and the visitor academic programmes, which include the visitor and associates programme, refresher courses for teachers.

PARTICIPANT

The workshop is meant for postgraduate/Engineering students interested in GW astronomy. A small number of highly motivated final-year undergraduate students will be considered. Background in gravitational wave astronomy is preferred.

"The workshop can support a maximum of 40 participants, who will be provided to-and-for sleeper class train fares, boarding, and lodging."

IMPORTANT DEADLINES

- Duration of workshop:** 15th Oct.-19th Oct. 2024
- Last date to submit application:** 20 Sep. 2024
- Selected applicants will be informed by:** 22 Sep. 2024

COORDINATORS

Dr. Apratim Ganguly, IUCAA, Pune
email id: apratim@iucaa.in

Dr. Sajal Mukherjee, BITS Pilani, Pilani Campus
email id: sajal.mukherjee@pilani.bits-pilani.ac.in

HOW TO APPLY

Click here:

<https://tinyurl.com/yvms9rfa>

