



The Astronomy Centre for Educators (ACE)
Inter-University Centre for Astronomy and Astrophysics (IUCAA)
Malaviya Mission Teacher Training Programme

General Relativity

A Refresher Course

We invite applications for a two-week refresher course in General Relativity designed for teachers and young researchers seeking to revisit its fundamentals and gain fresh perspectives. Through lectures and tutorials, participants will explore fundamental concepts, advanced mathematics, and recent applications in astrophysics, preparing them for further studies of compact objects, gravitational waves, and cosmology.

Eligibility:

**College and university faculty members,
post-doctoral fellows, and research scholars**

Registration deadline:

April 05, 2025

Program Dates:

June 23 – July 5, 2025

Venue:

IUCAA, Pune

Registration link: <https://www.bit.ly/gravity2025refresher>

Contact information: nrciucaa@gmail.com

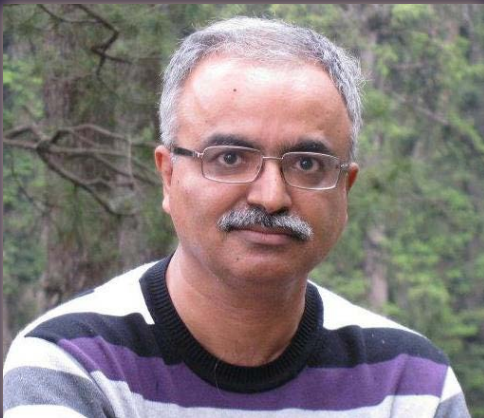
Instructors' profiles:

Patrick Das Gupta

Patrick Das Gupta is a theoretical physicist and astrophysicist interested in addressing problems in general relativity, astrophysics, cosmology, and quantum theory. He is currently involved in the research studies pertaining to Fast Radio Bursts, Supermassive Black hole formation, Dyonic Primordial Black holes, Measurement problem in Quantum Mechanics and Non-linear neuronal membrane capacitance. After 31 years inspiring students at the University of Delhi, he retired in March 2024 as a beloved educator known for making complex physics approachable. With a master's from BITS Pilani and a Ph.D. from TIFR, Mumbai, Patrick brings decades of experience teaching physics and astrophysics to this course. Having taught students at all levels from Bachelor's, master's, and Ph.D., he's excited to help introduce the wonders of Einstein's great theory.



Tejinder Pal Singh



Tejinder Pal Singh is a theoretical physicist captivated by the intersections of classical gravity, quantum mechanics, and cosmology. After 33 years at the Tata Institute of Fundamental Research, Mumbai, he concluded his tenure in July 2022, leaving a legacy of inspiring graduate students with his theory courses and mentoring Ph.D. students. Holding a master's from IIT Delhi and a Ph.D. from TIFR, Mumbai, Tejinder has been keen on addressing the foundational problems of quantum theory to unlock the secrets of gravity.

Over the last few years his research has focused on developing a theory of unification which has come to be known as the octonionic theory. With a talent for sparking curiosity, he's eager to guide learners through Einstein's revolutionary ideas.

Additional program details:

- Application results will be announced by the last week of April 2025.
- There is no application or program fee. Travel support as per the norms and free hospitality will be provided to all the selected participants.
- Adhering to UGC norms, a refresher course completion certificate will be provided to all eligible participants.
- Students pursuing Bachelor's or Master's degrees are not eligible to apply.