



ICTS Astrophysics & Relativity Seminar

Title : The prospect of unravelling the physics of high-density matter: An astrophysical Perspective

Speaker : Ritam Mallick (IISER Bhopal)

Date : Friday, 23rd February, 2024

Time : 02:00 PM (IST)

Abstract : The quest to understand the properties of matter at high density has intrigued physicists for more than a few decades. The problem is complicated, as having a proper theory describing it is challenging. Earth-based experiments to probe such densities are yet to materialize. One of the naturally occurring laboratories where such matter exists is the cores of a neutron star. Recent precise mass and radius measurements of several pulsars and gravitational wave detection of binary mergers have thrown some light towards constraining matter properties that can reside inside neutron stars. In this talk, I will present recent results of how such density regimes can be probed using model-agnostic methods. Along with the constraints from isolated neutron stars, gravitational waves from neutron star binaries can help us to unmask the nature of matter at high density.

Venue : Offline: Feynman Lecture Hall

Online: Please click on the below link to join the seminar

<https://icts-res-in.zoom.us/j/92450173078?pwd=Z1M2QVROYlZtSGlQWWVQSVhvQlZlEQT09>

Meeting ID: 924 5017 3078

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