

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

INTERNATIONAL

SCIENCES

## **ICTS Astrophysical Relativity Seminar**

- Title : Imprints of the internal composition of neutron stars on gravitational wave emission
- Speaker : Debarati Chatterjee (IUCAA, Pune)
- Wednesday, 09<sup>th</sup> June 2021 Date
- Time : 02:00 pm (IST)
- : As we enter into an era of multi-messenger astronomy, we will soon have access Abstract to a vast pool of data containing information about compact stars. Observations of neutron stars, seen in multi-wavelength electromagnetic frequencies as well as gravitational waves, will allow us to investigate the behaviour of matter under extreme conditions. Theoretical models, that probe conditions beyond the reach of terrestrial experiments, reveal that the interior composition of neutron stars should affect its observable properties. The challenge then is to identify these signatures in the data and impose constraints on these models. I will present some of my past research experience and future interests in probing dense matter physics using gravitational waves.
- Venue : Please click on the link to join the seminar https://zoom.us/i/94126352447?pwd=QnREUTRJN01sUUV2c0FEQWRLUnM **wOT09** Meeting ID: 941 2635 2447 Passcode: 836661