

INTERNATIONAL ICTS CENTRE for THEORETICAL SCIENCES

## **ICTS Astrophysics and Relativity Seminar**

- Interplay of microscopic and emergent symmetries in a spin-orbit coupled Dirac semi-Title metal
- **Speaker** Hemantakumar Phurailatpam (The Chinese University of Hong Kong)
- Friday, 12<sup>th</sup> April 2024 Date

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

- Time 2:00 PM (IST)
- Abstract : LeR is a Python package grounded in statistical methods, primarily designed to compute detectable rates for gravitational wave (GW) events, including lensed GW events. The package's functionality is built upon the interplay of several components: (1) modelling GW sources, (2) modelling lens galaxies and calculating image properties for lensed events, (3) SNR calculation using the gwsnr package, and (4) computing event rates per year. LeR is noted for its computational efficiency and incorporation of the latest models for accurate results. Current applications of the package include forecasting binary black hole (BBH) GW events (both unlensed and lensed) with future detectors, validating GW lensed events, and statistical modelling of lensed binary neutron star (BNS) events for multi-messenger astronomy.
- Venue Feynman Lecture Hall Zoom link: https://icts-res-in.zoom.us/j/92529963282?pwd=TWErczd5d0EyM1ljL0ZralFJU2VJUT09 Meeting ID: 925 2996 3282 Passcode: 121224

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