



ICTS Synopsis Seminar

Title : Prospects of Observing Gravitational Lensing of Continuous Gravitational Waves

Speaker : Aditya Kumar Sharma (ICTS-TIFR, Bengaluru)

Date : Wednesday, 16 October 2024

Time : 2:00 PM (IST)

Abstract : Non-axisymmetric spinning neutron stars emit long-lived, quasi-monochromatic gravitational waves (GWs). Some of these sources of continuous GWs (CGWs) may reside behind the galactic supermassive black hole (SMBH), Sgr A*, resulting in gravitational lensing of the emitted GWs. In this talk, we explore the prospects for detecting such lensed CGWs with third-generation ground-based GW detectors. We also study how well the properties of the Sgr A* can be probed given such a detection. Finally, we discuss the potential impact of gravitational lensing on the results of current CGW searches towards the galactic centre.

Venue : Feynman Lecture Hall

Zoom Link: <https://icts-res-in.zoom.us/j/95935168966?pwd=ggwwmXg1HOxwjN9rlOcWPGCyjLKLDA.1>

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