



## ICTS Synopsis Seminar

- Title** : Detecting Strong Gravitational Lensing of Gravitational Waves
- Speaker** : Ankur Barsode (ICTS-TIFR, Bengaluru)
- Date** : Tuesday, 26 May 2026
- Time** : 3:30 PM (IST)
- Abstract** : If a massive object (eg, a galaxy) lies along the line-of-sight to the source of gravitational waves (GW), it can bend their propagation paths. Strong lensing of GWs occurs when multiple paths bend towards the observer, leading to multiple copies of the same signal arriving at our detectors at different times. If detected, such lensed GWs could provide a powerful probe of dark matter and high redshift cosmology, along with applications in source localisation and polarization measurement. However, the prerequisite problem of identifying such images from GW data is statistically as well as computationally challenging. In this talk, I will present some of the recent developments in GW strong lensing search, including a forecast for when the first detection might happen.
- Venue** : Feynman Lecture Hall  
Zoom link: <https://icts-res-in.zoom.us/j/94820191804?pwd=21bbl8KypdubMKnfknMJzx77NBgI6W.1>  
Meeting ID: 948 2019 1804  
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