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## Gravitational-wave observations and cosmology with gravitational waves

*Tuesday 23 August 2022 09:10 (40 minutes)*

The first three observing runs of the LIGO-Virgo-KAGRA detector network have led to 90 detections of compact binary coalescences and have ushered in a wealth of results in fundamental physics, astrophysics and cosmology. In this talk we give a brief overview of the observations and focus on standard-siren cosmology, namely the use of compact binaries as standard distance indicators to measure cosmological parameters such as the Hubble constant. We discuss the current results, with and without use of bright electromagnetic counterparts, and discuss the prospects and challenges towards precision cosmography using gravitational-waves.

**Author:** GHOSH, Archisman

**Presenter:** GHOSH, Archisman

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