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Type: **Plenary talk**

Gravitational wave observational results and prospects

Thursday 31 August 2023 09:30 (30 minutes)

Brady will present the current state of ground-based, gravitational-wave astronomy and the prospects for observations over the next decade. He will present highlights from LIGO-Virgo-KAGRA (LVK) observing runs. Brady will discuss how planned detector improvements will enable unprecedented measurements of masses, spins, and other properties of black holes and neutron stars in binary systems. These improvements may also open new discovery spaces for other gravitational-wave sources. The talk will end with a discussion of future directions for upgrading the LIGO, Virgo and KAGRA detectors and how this may fit with plans for next-generation facilities such as Cosmic Explorer and Einstein Telescope.

Submitted on behalf of a Collaboration?

Yes

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