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Current status of DECIGO and B-DECIGO

Friday, 12 July 2024 09:00 (30 minutes)

DECIGO (DECi-Hertz Gravitational-wave Observatory) and B-DECIGO are interferometric satellites expected to be launched in Japan around the 2030s targeting the observation of gravitational waves (GWs) from 0.1 Hz to 10 Hz. These missions will unveil populations of intermediate-mass black hole mergers, provide frequent opportunities to localize the host galaxy of a binary neutron star before its merger, and ultimately, directly observe stochastic GWs originating from cosmic inflation. In this talk, the current status of DECIGO and B-DECIGO is presented along with their basic configurations. Additionally, key components that have been studied so far are reported, such as sensitivity trade-offs and theoretical and experimental demonstrations of intersatellite formation flying.

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