

Current status and future prospects of gravitational-wave cosmology

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Gravitational wave sources accompanied by electromagnetic counterparts offer an independent standard siren measurement of the Hubble constant as demonstrated following the discovery of the first neutron star merger, GW170817. This measurement does not assume a cosmological model and is independent of a cosmic distance ladder. I will talk about the first result of the Hubble constant measurement using the gravitational-wave and electromagnetic signals from GW170817. I'll also show how resolving the superluminal jet in a neutron star merger by the Very-long baseline interferometry helps the measurement. I'll discuss the future prospects of gravitational-wave cosmology.

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Session Classification: Invited talks