

Future constraints from the gravitational wave standard siren data

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The detection of gravitational waves (GW) by the LIGO and Virgo collaborations offers a whole new range of possible tests and opens up a new window which may shed light on the nature of gravitaion, dark energy and dark matter, etc. Recently, our group investigate how future gravitational wave standard siren (GWSS) data could help to constrain different cosmological models. In particular, our forecastings are based on a reasonable estimation of binary merger rate and the expected configuration of the third-generation gravitational wave detector, the Einstein Telescope. Our analyses show that the inclusion of the GWSS data from the Einstein Telescope can improve the constraint on the parameter spaces of different cosmological models.

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