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Microlensing meets TGR

GR tests used by the LIGO-Virgo-KAGRA collaboration probes various parts of the gravitational-wave signal. However, a comprehensive understanding of the tests requires accounting for potential biases introduced by unmodeled physical effects like eccentricity, spin precession, or lensing. In this talk, we delve into the intricate influence of microlensing and millilensing on the IMR consistency test and TIGER analysis. By employing Bayesian inference tools, we demonstrate that microlensed signals can potentially lead to deviations from GR. By unraveling the impact of lensing effects in these tests, we shed light on the subtle complexities of lensing effects in gravitational wave astronomy and highlight the significance of considering lensing templates for robust mitigation of biases in GR tests.

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