

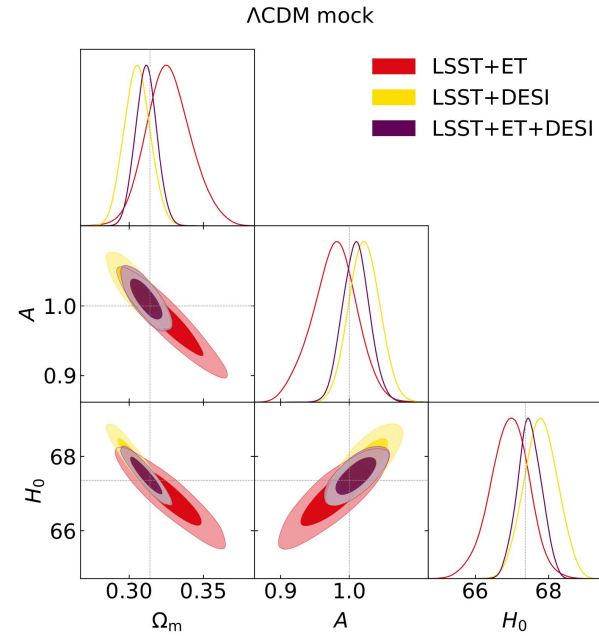
Modified gravity biases distance duality relation constraints from standard sirens and supernovae

“Constraints on the distance duality relation with standard sirens”,
N. B. Hogg, M. Martinelli, S. Nesseris, JCAP 019 2020. arXiv: 2007.14335

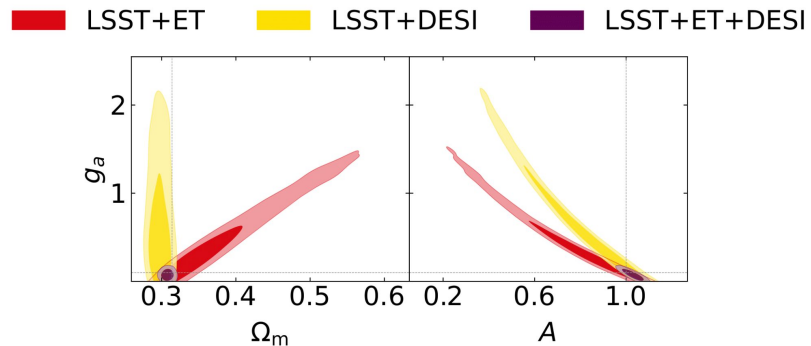
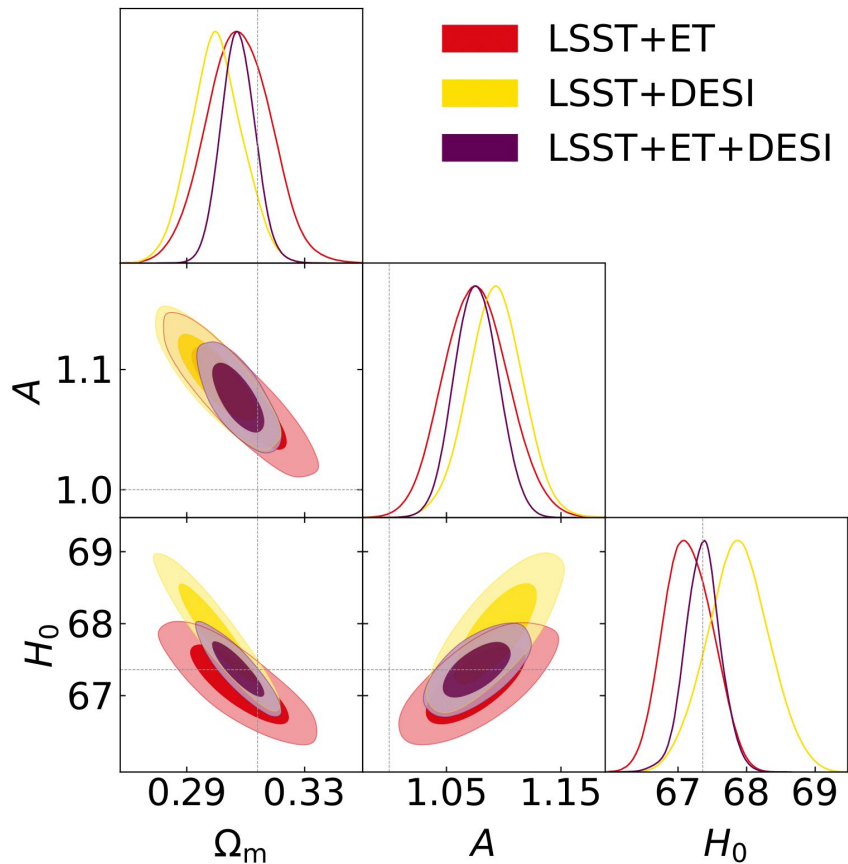
The distance duality relation can be violated by a photon-axion decay mechanism

$$d_L(z) = (1 + z)^2 d_A(z)$$

$$d_L^{\text{obs}}(z) = \frac{d_L^{\text{bare}}}{\sqrt{P(z)}}$$



MG-low mock



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