

Testing Beyond LambdaCDM Models

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Current and future cosmological observations will be used to tighten constraints on the parameters of the standard model of cosmology - Lambda CDM. But they might also allow us to discover or constrain new physics beyond Lambda CDM. I will focus on gravity and how we might constrain it. I will first recap why GR is a good theory, then discuss various ways of modifying it. I will then look at possible effects on cosmological scales, how gravitational screening can play a role and finally, discuss the latest constraints.

References:

Ferreira, P.G. arXiv:1902.10503

Baker, T et al arXiv:1908.03430

Joudaki, S et al arXiv:2010.15278