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## Next-generation forecasts for screened and unscreened models of modified gravity

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Next-generation galaxy surveys will provide an accurate determination of the growth of large scale structures (LSS) in the Universe as a function of scale and redshift, on top of improved determinations of the background geometry. This will allow us to test, with unprecedented precision, the predictions of the most popular modified gravity models proposed in the literature, that have not been ruled out yet by observations. In this talk we concentrate on models which can be described by the addition of a single scalar degree of freedom to Einstein's GR, with a coupling to matter perturbations. In order to avoid the tight solar-system constraints, most of these models need some sort of screening mechanism to recover GR at very small scales, and we can classify these models by the presence or not of one of these mechanisms. In this work we will present constraints by future experiments on some particular models, which we will classify by models being screened, namely  $f(R)$ , DGP and k-Mouflage and unscreened models, in this case the popular Jordan-Brans-Dicke model. We will explain the different observables measured by future missions such as Euclid and Rubin and the impact of linear and non-linear scales and how this propagates onto the final constrained on the model parameters.

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