

More than the sum of its parts: joint analysis of LSS and CMB experiments

Through weak lensing and galaxy clustering measurements, future large-scale galaxy surveys will provide unprecedented constraints on the late Universe. On the other hand, high-quality CMB observations (Planck and future CMB experiments) can – and already do – put tight constraints on the early Universe. In this talk, I will show that combining these two sources of cosmological information can yield a significant lever arm and improve tremendously the constraints on our cosmological model. Moreover, I will also address the cross-correlation of those two types of signals, which can yield additional and significant constraints especially on extensions to the standard cosmological model. As a part of my talk, I will present in particular forecasts of the future Euclid x CMB cross-correlation constraints, performed by the CMB-cross correlations Science Working Group of the Euclid Collaboration.

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