

Cosmological exploitation of Angular Redshift Fluctuations with Euclid Observables

Thursday, 18 April 2024 15:55 (10)

I will briefly describe the Standard Project I am leading within Euclid on the exploitation of angular redshift fluctuations (ARF) with Euclid probes, namely with the weak lensing survey, and the photometric and spectroscopic galaxy surveys. I will first show how the addition of ARF computed in thin and wide redshift shells probed by Euclid will very significantly improve the measurements of redshift shell parameters like linear bias, lensing magnification bias, or photo-z error rms, while also shrinking the error ellipses in other key cosmological parameters like the σ_8 , or the parameters of the dark energy equation of state (w_0 , w_a). I will also briefly outline the potential of the ARF in Euclid x CMB cross-correlation studies, either in the context of dark energy characterization via the integrated Sachs-Wolfe effect, or when chasing the diffuse baryons giving rise to kinetic Sunyaev-Zeldovich anisotropies in the CMB at different cosmological epochs.

Primary author(s): HERNÁNDEZ MONTEAGUDO, Carlos (chm@iac.es); Mrs PÉREZ, Mar (IAC); Dr BERMEJO-CLIMENT, José Ramón (IAC); Dr MARTÍN CAMALICH, Jorge (IAC); Mrs CRESPO PÉREZ, Alba (IAC)

Presenter(s): HERNÁNDEZ MONTEAGUDO, Carlos (chm@iac.es)

Session Classification : Galaxy clustering