ID de Contribution: **38** Type: **Non spécifié**

Baryon-free S8 tension with stage IV cosmic shear surveys

mercredi 11 juin 2025 11:30 (20 minutes)

Accurately modelling matter power spectrum effects at small scales, such as baryonic feedback, is essential to avoid significant bias in the estimation of cosmological parameters with cosmic shear. However, Stage IV surveys like LSST will be so precise that significant information can still be extracted from large scales alone. In this talk, I will present an analysis of LSST Year 1-like mock data, focusing on the impact of baryonic feedback modeling on cosmic shear constraints. By applying physically motivated, redshift-dependent scale cuts, we studied the changes in the constraining power of the cosmological parameters S8 and Om, as well as their implications for the tension with Planck measurements. Our results show that the S8 tension remains detectable even with conservative scale cuts, regardless of whether an incorrect model for baryons is assumed. I will also discuss the crucial role of high-precision measurements of redshift distributions in achieving these results.

Orateur: TRUTTERO, Ottavia (University of Edinburgh)

Classification de Session: COLOURS Workshop