Contribution ID: **106**   Type: **late universe (including CMB, dark energy, astrostatistics)**

Modelling of Astrophysical Systematics for Cosmology with LSST

Thursday 1 June 2023 16:29 (5 minutes)

LSST will provide an unprecedented wealth of astronomical data, with which we will be able to tightly constrain the values of the cosmological parameters, notably those which describe the poorly understood dark energy component. As weak lensing and galaxy clustering measurements provide a way to infer key cosmological quantities such as the dark matter distribution, the evolution of cosmic structure, and the expansion history of the Universe, detailed and rigorous analysis is necessary in order to glean as much information as possible from LSST measurements of these effects. This project developed a consistent and reliable framework (FISK) where three key systematic effects impacting weak lensing and galaxy clustering (intrinsic alignment of galaxies, galaxy bias and photometric redshift uncertainties) are modeled jointly. The results directly enable rigorous weak lensing and galaxy clustering constraints on cosmological parameters with LSST.

Would you be interested in presenting a poster? (this will not impact the decision on your talk)

no

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