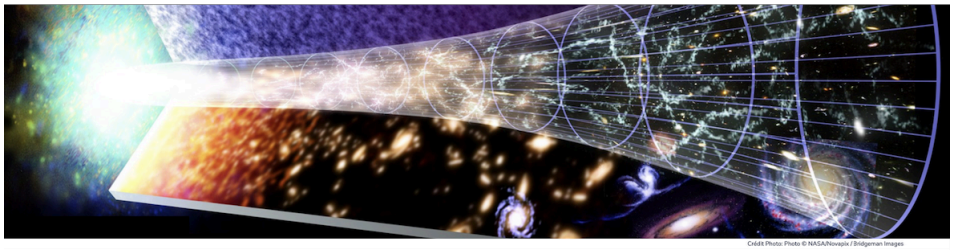

Contribution ID: **41** Type: **not specified**

Primordial non-Gaussianity in the non-linear matter and halo fields

Wednesday, January 18, 2023 2:55 PM (5 minutes)

"Future Large Scale Structure surveys are expected to improve over current bounds on primordial non-Gaussianity (PNG), with a significant impact on our understanding of early Universe physics. However, the level of such improvements strongly depends on the extent to which late time non-linearities erase the PNG signal on small scales.
In this talk, I will present our results based on the Quijote-PNG set of N-body simulations and halo catalogues. I will discuss how much primordial information remains in the bispectrum of the non-linear matter density field, and how combining it with the matter power spectrum helps to break degeneracies with standard ΛCDM parameters. I will also comment the case of the halo field, for which we developed a simple procedure for the joint estimation of cosmological and PNG parameters using optimal data compression."

Presenter: JUNG, Gabriel (IAS (Orsay))