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Type: **Talk**

Understanding the non-Gaussianities in the Hubble-Lemaître diagram

Tuesday, 24 January 2023 16:00 (25 minutes)

I will present the theoretical framework to understand the non-Gaussianities in the Hubble-Lemaître diagram, namely the distance-redshift relation, emerging from relativistic cosmological simulations, such as gevolution. With these analytic results, I will discuss which kind of non-Gaussianities can be addressed to intrinsic non-linear effects, such as post-Born corrections and higher-order statistic, against spurious effects introduced by the binning in redshift along the data analysis. Moreover, the numerical shortcuts introduced to account for the matter bispectrum will be discussed, especially in regard of the choice of the appropriate UV-cutoff to be chosen for a well-posed comparison with the above-mentioned relativistic simulations.

Topic Field

Cosmology

Faculty position

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