Contribution ID: **37**   Type: **not specified**

Sphericity of peaks with non-Gaussianity

Thursday, 25 July 2024 14:35 (25 minutes)

Spherical collapse is assumed in most of the works on PBH formation from the primordial curvature perturbation. According to the peak theory[1], sufficiently high peaks of a Gaussian random scalar field statistically have spherical symmetric shapes in the homogeneous and isotropic universe, which guarantees the above assumption. However, the PBH formation is related to highly non-linear regime of the perturbation and the non-Gaussianity may play an important role. In the talk, I will explicitly show how this argument can be modified if the curvature perturbation obeys non-Gaussianity.

Presenter: Ms UWABO, Michiru (IBS CTPU-CGA)

Session Classification: Presentations