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## From the merger rate of Primordial Black Hole Binaries to the Primordial Power Spectrum of curvature perturbation on small scales

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The properties of primordial curvature perturbations on small scales are still unknown while those on large scales have been well probed by the observations of the cosmic microwave background anisotropies and the large scale structure. We propose the reconstruction method of primordial curvature perturbations on small scales through the merger rate of binary primordial black holes, which could form from large primordial curvature perturbation on small scales.

Primary author: Prof. YING-LI, Zhang

Presenter: Prof. YING-LI, Zhang

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