

International Joint Workshop on the Standard Model and Beyond 2024 & 3rd Gordon Godfrey Workshop on Astroparticle Physics

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Type: **Invited Talk**

Our Universe in Simulation

Monday 9 December 2024 17:30 (30 minutes)

We are expecting high-precision observations from upcoming CMB surveys, such as the Simons Observatory, CMB-S4, and LiteBIRD, as well as from surveys of the large-scale structure, such as Rubin LSST, Euclid, DESI, PSF, SPHEREx, and Roman. Most of the observables from these independent surveys will be correlated due to their sky and redshift overlaps. Joint analysis of these surveys will be key to transformative discoveries in fundamental physics—inflation, dark energy, dark matter, and neutrino mass. In this talk, I will discuss paths to simulate correlated CMB and LSS observables to achieve these goals.

Presenter: LIU, Jia (IPMU)

Session Classification: Plenary