



Cosmology with Massive Neutrinos

Date: March 20, 2024 (Wednesday)

Time: 5:00 p.m.

Venue: CBC, LG1/F, Chow Yei Ching Building, Main Campus, HKU



Prof. Jia LIU

Kavli IPMU in the University of Tokyo

Abstract:

Ghostly neutrino particles continue to bring surprises to fundamental physics, from their existence to the phenomenon of neutrino oscillation, which implies their nonzero masses. Their exact masses, among the most curious unknowns beyond the Standard Model of particle physics, can soon be probed by the joint analysis of ongoing and upcoming cosmological surveys including Rubin LSST, Euclid, Roman, DESI, PFS, Simons Observatory, CMB-S4, and LiteBRID. In this talk, I will discuss ongoing works studying the effects of massive neutrinos and will draw a roadmap towards discovering the neutrino mass over the next decade.

Biography:

Jia Liu (<https://liu479.github.io/>) is a computational and observational cosmologist. Liu is an associate professor at Kavli IPMU in the University of Tokyo and the director of the newly established Center for Data-Driven Discovery (CD3) at Kavli IPMU. Liu received her PhD from Columbia University in 2016, was an NSF postdoctoral fellow at Princeton (2016-2019) and a BCCP postdoctoral fellow at UC Berkeley (2019-2021).

Anyone interested is welcome to attend!

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