

# Confronting new physics with early universe cosmology

*Wednesday 9 July 2025 17:00 (30 minutes)*

In this talk I shall elucidate how early universe cosmology, together with gravity, can provide a window in exploring physics beyond the Standard Model (SM). Typically, I will focus on two long-standing puzzles of particle-cosmology, namely, dark matter and matter-antimatter asymmetry. In this context I will also discuss the role of the primordial gravitational wave (GW), having different origins, in testing such scenarios at the (futuristic) GW experimental facilities.

**Presenter:** BARMAN, Basabendu

**Session Classification:** Plenary