

## Cosmic birefringence tomography - Keynote Talk

*Tuesday, 14 May 2024 13:00 (1h 30m)*

Cosmic birefringence — a rotation of the linear polarization plane of the cosmic microwave background (CMB) as they travel through space — is a key observational effect on CMB as it provides a way to search for parity-violating physics in cosmology. Recent measurements of the cross-correlation between the even-parity E-modes and odd-parity B-modes in the Planck polarization map suggest a tantalizing hint of cosmic birefringence. A possible candidate for the origin of cosmic birefringence is pseudoscalar “axionlike” fields. In this talk, after briefly reviewing the observations of isotropic and anisotropic cosmic birefringence, I will discuss the importance of the time evolution of axionlike fields to explore the origin of cosmic birefringence.

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