

Probing the anisotropic early Universe

Thursday, 13 April 2023 09:35 (22 minutes)

The early Universe is usually assumed to be thermalised, homogeneous and isotropic, with only small fluctuations. However many new physics scenarios violate these assumptions: Phase transitions or displaced scalar fields lead to large deviations from thermal equilibrium, while topological defects like strings and domain walls represent large anisotropies. This talk will give an overview of these phenomena, and discuss their observable imprint in the form of gravitational waves and of CMB spectral distortions. Some recent progress in the study of phase transitions in strongly coupled theories will also be discussed.

Primary author: SCHWALLER, Pedro

Presenter: SCHWALLER, Pedro

Session Classification: Early Universe

Track Classification: Early Universe