Phenomenology 2018 Symposium



Contribution ID: 617

Type: parallel talk

Cosmological Quantum Backreaction

Tuesday 8 May 2018 15:30 (15 minutes)

Quantum fields living on cosmological spacetimes can experience particle production due to their interaction with the expanding background. Given the right conditions, the energy density of the particles produced through this process can become pronounced enough to backreact on the cosmological expansion. In this work we review the basics of cosmological quantum particle production through the lens of asymptotic analysis and discuss the backreaction effects of a quantized scalar field on a cosmological bounce scenario. Finally, we discuss the relevance of quantum particle production for inflationary scenarios.

Summary

Authors: ZAGO, Fernando; KOSOWSKY, Arthur Presenter: ZAGO, Fernando Session Classification: Cosmology I