Contribution ID: **26** Type: **poster**

Probing High Energy Particle Physics with the Cosmic Gravitational Microwave Background

The thermal plasma in the early universe produced a guaranteed stochastic gravitational wave (GW) background, which peaks today in the microwave regime and was dubbed the cosmic gravitational microwave background (CGMB). The CGMB spectrum encodes fundamental information about particle physics and cosmology at ultra high energies. In particular, one can determine from the CGMB spectrum the maximum temperature of the universe and the effective degrees of freedom at the maximum temperature. This allows us to investigate particle physics models at these ultra-high energy scales. Additionally, quantum gravity effects are manifest in the CGMB spectrum as small corrections to the leading order result.

Title

Abstract

Primary author: SCHUETTE-ENGEL, Jan (UC Berkeley)

Presenter: SCHUETTE-ENGEL, Jan (UC Berkeley)