Contribution ID: **1393** Type: **Parallel Talk**

Early Universe Cosmology with LISA

Saturday, 9 July 2022 14:30 (15 minutes)

Primordial Gravitational Waves (GWs) are a unique tool to explore the physics and the microphysics of the early Universe. After the GW detections by the LIGO/Virgo collaboration the next target of modern cosmology is the detection of the stochastic background of GWs. Even if the main probe of primordial GWs is the Cosmic Microwave Background, we will see in this talk how we can extract information about primordial GWs at smaller scale. In particular, the space-based LISA interferometer, in addiction to detection and characterization of GWs of astrophysical origin, will give compelling information about the cosmological background of GWs. I will summarise part of the activity developed within the LISA Cosmology working group, and, in particular, I will discuss on the ability of LISA to test primordial well-motivated sources of GWs and the sensitivity to peculiar features of the SGWB, like anisotropy and chirality.

In-person participation

Yes

Primary author: RICCIARDONE, Angelo (Istituto Nazionale di Fisica Nucleare)

Presenter: RICCIARDONE, Angelo (Istituto Nazionale di Fisica Nucleare)

Session Classification: Astroparticle Physics and Cosmology

Track Classification: Astroparticle Physics and Cosmology