Contribution ID: **9** Type: **Invited highlight talk**

Measuring the polarization of the CMB with the QUIJOTE experiment

Friday 8 June 2018 12:00 (30 minutes)

In the last years we have obtained a very detailed picture of the early Universe, measuring the intensity and polarization of the Cosmic Microwave Background (CMB), the relic radiation from the Big Bang. The last two space missions WMAP and Planck, and also previous ground-based and balloon experiments, allowed us to consolidate the precision Cosmology era. Nowadays, ground-based experiments are measuring the sky looking for the detection of CMB B-modes at large angular scales, the tiny polarization signal relic from Inflation. This is one of the most challenging objectives of modern Cosmology, since many contaminants are strongly hiding it. For this purpose, we must achieve a very precise characterization of the Galactic emissions, and experiments as QUIJOTE have a very important role in this context. In this talk we will briefly introduce the origin of CMB radiation and the physics of the foreground emissions. Then we will describe the QUIJOTE experiment with its present scientific results and future plans. In particular, we will discuss the map-making process, that is the main topic of my PhD until now.

Author: GUIDI, Federica (IAC)

Presenter: GUIDI, Federica (IAC)

Session Classification: Highlight talks