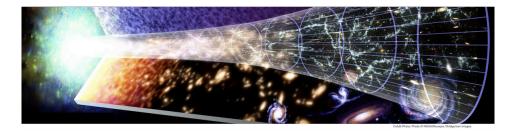
## Kick-off du GDR CoPhy



ID de Contribution: 38

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## Constraining cosmology with the summer fields of the South Pole Telescope

mercredi 18 janvier 2023 14:50 (5 minutes)

The South Pole Telescope (SPT) is a 10-meters diameter telescope observing the Cosmic Microwave Background (CMB) from the South Pole, with angular resolution of arcminutes. A third generation camera (SPT-3G) was mounted on SPT in 2018, showing the remarkable performances of this experiment, which is currently one of the most competitive for CMB science. During the first observing season SPT-3G observed its baseline sky patch (1500 deg2) and obtained cosmological constraints consistent with those of the Planck mission. Deeper observations of the baseline field are currently ongoing, with the goal of achieving cosmological constraints at a level of precision comparable with Planck. In this talk I will present the ongoing analysis of an extension of the SPT-3G survey, which is a combination of the baseline SPT-3G field with the so-called "summer fields", which are additional 3000 deg2 that are observed during the Antarctic summer season. The SPT-3G summer data, combined with the SPT-3G baseline field and Planck data, are expected to provide even tighter cosmological constraints. I will present some preliminary results on the analysis of the SPT-3G summer fields, and forecasts on the constraints of cosmological parameters.

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