

Contribution ID: 7 Type: **not specified**

Constraining cosmological parameters with the β -skeleton of the cosmic web

Thursday 30 May 2019 14:30 (15 minutes)

Constraining cosmological parameters from observational data is one of the main challenges in observational cosmology. To address it, we present results based on the β -skeleton, a new technique designed to find a graph describing the underlying web structure in spatial point distributions. From the β -skeleton we define an entropy scalar and show how it can be used a cosmological probe by measuring changes in entropy as a function of the β parameter used to build the skeleton. We test this concept both on simulated and observational data from the Sloan Digital Sky Survey. We finalize by showing how future projects such as the Dark Energy Spectroscopic Instrument can be used to take advantage of this new technique.

Author: GARCÍA ALVARADO, María Valentina (Universidad de los Andes)

Co-author: Dr FORERO-ROMERO, Jaime (Universidad de los Andes)

Presenter: GARCÍA ALVARADO, María Valentina (Universidad de los Andes)

Session Classification: Cosmology