

Third Workshop on Current Challenges in Cosmology



Contribution ID: 40

Type: **not specified**

An overview of DESI Lyman alpha forest data and science.

Tuesday 24 October 2023 09:00 (1 hour)

The Lyman alpha forest measured from the spectra of high-redshift quasars observed with DESI will provide a wealth of information for cosmology. It will allow us to unveil the expansion history with great precision by measuring the BAO scale at redshift above 2, through the measurement of the forest absorptions auto-correlation and cross-correlations with quasars. Furthermore, it will provide information on scales of about tens of Mpc, allowing to set strong constraints to massive neutrinos and dark matter with small scale suppression, such as warm and scalar field dark matter. In this talk I will give an overview of the Lyman alpha DESI early data and science as well as prospects for the first year analysis.

Presenter: GONZÁLEZ, Alma (Universidad de Guanajuato)