Contribution ID: **48** Type: **not specified**

Cosmology with peculiar velocities and machine learning

Thursday 6 February 2025 09:00 (30 minutes)

I will present a new framework to infer the value of cosmological parameters from peculiar velocity surveys. Our approach, which has been tested on thousands of state-of-the-art cosmological hydrodynamic simulations from the CAMELS project, takes a set of galaxies, together with their peculiar velocities, and performs field-level simulation-based inference while marginalizing over baryonic effects. We show that including peculiar velocities is key to extracting robust cosmological information.

Author: Dr VILLAESCUSA-NAVARRO, Francisco

Presenter: Dr VILLAESCUSA-NAVARRO, Francisco

Session Classification: Session 9