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Virtual universes vs. the real thing

Wednesday, 14 October 2020 10:30 (2 hours)

In this session we will run a series of exercises aimed at familiarizing the attendees with large, publicly-available data sets derived from both cosmological simulations ("virtual universes") and astrophysical observations from two of ESA's most recent satellite missions: Gaia and Planck. We will show how the data sets can be retrieved in an efficient way and analysed using a variety of publicly-available software tools (e.g., visualisation software). In the case of Gaia, we will show how simple yet informative comparisons can be made with state-of-the-art simulations. For Planck, we will introduce methods for cosmological parameter inference, including MCMC samplers.

Presenters: FONT, Andreea; MCCARTHY, Ian

Session Classification: Parallel Session: Distributed programming