Contribution ID: **89** Type: **Talk**

Peering into the unknown with COSMOS LOFAR and JWST observations

Friday, 10 May 2024 09:40 (15 minutes)

In the era of state-of-the-art radio observations, paving the way to the SKA, the necessity of multi-wavelength and multi-frequency observations has been established as the only approach to understanding the radio source populations. This is demonstrated in all its glory via the panchromatic dataset of the COSMOS field, with the latest additions of the LOFAR and JWST datasets. Approaches as such enable us to image in high resolution and sensitivity the active galactic nuclei (AGN) radio population and extract information about the radio properties and their interaction with the environment. I will discuss the latest LOFAR DDT 48h observations of the COSMOS field at 144 MHz at 6”and 1”and how, in combination to multi-frequency (from 144MHz to 3 GHz) and multi-wavelength (X-ray to radio) data from the panchromatic dataset of COSMOS, they help us understand the nature of the radio source populations and their interrelation to their hosts and large-scale environment (e.g. galaxy groups, density fields, and cosmic web). I will lastly present our efforts to study the physical properties and hosts of radio AGN using LOFAR and JWST sub-arcsec observations.

keywords

AGN, galaxies, environment, galaxy groups, multi-wavelength, multi-frequency

In-person or online?

online

Career level

Mid-Senior

Primary author: VARDOULAKI, Eleni (Thüringer Landessternwarte Tautenburg)

Presenter: VARDOULAKI, Eleni (Thüringer Landessternwarte Tautenburg)

Session Classification: Starbursts / Star-forming Galaxies