

The Third National Workshop on the SKA Project - The Italian Route to the SKAO Revolution



Contribution ID: 4

Type: **not specified**

GAEA: a cosmological model for the HI content of galaxies and halos.

Thursday, 7 October 2021 12:20 (20 minutes)

I will present results based on our GALaxy Evolution and Assembly (GAEA) state-of-the-art semi-analytic model. GAEA follows the star formation, metallicity and black hole accretion history of galaxies in cosmological volumes, and includes an explicit partition of the cold gas content of galaxies in its molecular and atomic components. I will focus, in particular, on our studies of the HI content of galaxies and dark matter halos as a function of cosmic epochs and galaxy environments. I will also illustrate our ongoing activities aimed at creating dedicated mock catalogs that contain both physical properties of galaxies and information on the background dark matter structure, as well as a modelling of the HI line profile.

Research area

Other

Primary authors: DE LUCIA, Gabriella (Istituto Nazionale di Astrofisica (INAF)); XIE, Lizhi; SPINELLI, Marta

Presenter: DE LUCIA, Gabriella (Istituto Nazionale di Astrofisica (INAF))

Session Classification: Nearby Universe & Galaxy Evolution