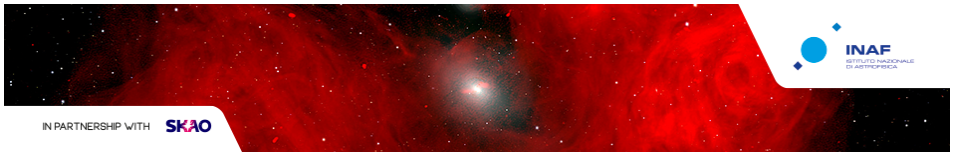

Contribution ID: **193** Type: **not specified**

HI Galaxy Science with SKA and Pathfinders

Tuesday, 28 November 2023 10:00 (30 minutes)

The 21-cm line of atomic hydrogen (HI) is a key tool to study multiple aspects of galaxy formation and evolution in a cosmological context. Atomic hydrogen, indeed, dominates the mass budget of the interstellar medium and is the main reservoir for star formation in galaxies. I will review recent results from ongoing HI surveys with SKA pathfinders and discuss future exciting prospects with SKA-mid. In particular, I will focus on (1) HI content, morphology, and kinematics in different types of galaxies, (2) processes of gas accretion, gas depletion, and gas removal, which are intimately linked with galaxy morphological transformations, (3) rotation curves and mass models of galaxies, which provide key testbeds for dark matter models and alternative gravitational theories.

Reasearch area

HI galaxy science

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Session Classification: Plenary - Scientific Highlights on the Pathway to the SKAO