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## First results from MeerKAT Commissioning Observations - 15'

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The MeerKAT Fornax Survey (MFS, PI Paolo Serra) is a dedicated large survey project planned by the MeerKAT telescope, the South-African precursor of the SKA. The MeerKAT telescope was inaugurated in July 2018. As of early 2019, MeerKAT will observe for 900 hours the Fornax cluster to study its assembly of new gas-rich galaxies and groups and the physics of gas accretion occurring in its environments. In this talk, I will outline the main scientific goals of the MeerKAT Fornax Survey and the main challenges that we will face in the analysis of high resolution ( $\sim 25$  kHz) and sensitivity (0.1 mJy) MeerKAT observations. I will show new results from high resolution (8") MeerKAT commissioning observations of the brightest cluster galaxy of Fornax (NGC 1399), of Fornax A, the extended radio source in the in-falling group of the cluster, and of the region connecting these two sources, where we detect neutral hydrogen gas (HI). I will focus on the challenges presented by the spatial extent of Fornax A ( $\sim 1$  degree in the sky) in correctly subtracting its continuum emission, and detecting the HI line with high signal to noise ratio. I will show how we solve these issues in the automated data reduction pipeline we developed for MeerKAT continuum and spectral line observations (MeerKATHI). The techniques for the reduction and analysis of MeerKAT observations will set an important starting point to plan and develop the SKA survey projects and data reduction strategies.

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