The era of collaborative multi-wavelength and multi-messenger astronomy: science and technology



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A first glimpse of the Galactic Plane with ASKAP

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In the wide context of the ASKAP early-science phase and in preparation for the legacy sur-veys, we report the first observations toward the Galactic plane (The SCORPIO project). The targeted field was chosen to encompass the entire SCORPIO field, a patch of Galactic Plane already observed with ATCA (Umana et al., 2015).

The major scientific goals of SCORPIO are the production of catalogues and the study of different classes of Galactic radio source like radio stars and circumstellar envelopes, related to young or evolved stars (HIIs, Planetary Nebulae, Luminous Blue Variables, Wolf–Rayet stars, Supernova Remnants). SCORPIO will be also used as a technical test-bed for the Evolutionary Map of the Universe survey (EMU; Norris2011), one of the approved ASKAP legacy surveys scheduled to start in late 2019, in particular in helping to shape the strategy for its Galactic Plane sections.

The observations were carried out at a central frequency of 912 MHz and covered a total area of about 40 square degrees. In this talk first results on both point and extended sources will be presented. In particular, the synergy between radio data and data-set obtained at other wavelengths as unique tool for a robust classification of new detections will be discussed.

Primary author: Dr GRAZIA, Umana (INAF - Catania) Presenter: Dr GRAZIA, Umana (INAF - Catania)