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



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Assessing the RQ AGN population: results from observations of the G23 field with ASKAP and ATCA

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To properly understand the detailed process of galaxy formation and evolution there is an urgent need to identify and quantify the role of AGN feedback, not only through detailed studies in the local Universe, but also at high redshifts, where most of the accretion occurred. Radio surveys have reached a depth where large numbers of star-forming galaxies (SFG) and radio-quiet (RQ) AGNs (i.e. AGN that do not display large scale jets and lobes, and typically associated to Seyfert galaxies and QSO) are detected. This opens new exciting perspectives for deep continuum-radio surveys, providing a unique and powerful dust/gas-obscuration-free tool to get a global census of both star formation and both modes of AGN feedback (radio- and QSO-modes) up to high redshifts; hence tracing the apparently simultaneous development of the stellar populations and the black hole growth in the first massive galaxies. In this talk I will give an overview of our current understanding of radio-selected RQ AGN and of the origin of their radio emission, focusing on the latest results from the GAMA 23 field, observed with ASKAP as part of the EMU early science programme, and with the ATCA (5.5 and 9.5 GHz) in the framework of the GLASS project.

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