

The Rapid ASKAP Continuum Survey

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Surveys of the sky at multiple wavelengths provide a complete view into the large-scale properties of the Universe while also allowing studies of individual and also unique and heretofore unknown astrophysical objects and processes. The Australian SKA Pathfinder (ASKAP) is completing a series of shallow radio-frequency surveys as part of the Rapid ASKAP Continuum Survey (RACS). RACS covers three radio-frequency bands centred on 888, 1367, and 1655 MHz and covers the sky up to declination $\sim +49$ degrees. RACS provides a combination of frequency, sensitivity (~ 150 -300 micro-Jansky per beam), and resolution (~ 8 -15 arcsec) that fills a niche in the existing ecosystem of widefield surveys. Imaging and catalogue releases are underway and focus on the Stokes I and V continuum emission of the sky accessible to ASKAP, featuring 2-3M radio sources in each of the three bands. As well as this continuum component, spectro-polarimetric work in Stokes Q and U is also underway. On behalf of the team behind RACS, I will describe the surveys, highlight a selection of science results so far, and report on the current and upcoming releases and progress of RACS.

keywords

survey overview

In-person or online?

in-person

Career level

ECR

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