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



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## Neutral hydrogen in the distant Universe - New HI absorption results from ASKAP

*Tuesday, 22 October 2019 11:00 (30 minutes)* 

Our knowledge about the amount and distribution of neutral atomic hydrogen (HI) in galaxies in the distant Universe remains patchy and incomplete, yet this component of the interstellar medium is critical to understanding how galaxies evolve over cosmic time. The large (30 square degree) field of view, wide spectral bandpass and radio-quiet site of the Australian SKA Pathfinder (ASKAP) telescope provide a powerful new capability for large-area HI absorption surveys of galaxies in the redshift range 0 < z < 1. I will show some early science results from observations during ASKAP commissioning, and describe the 'all-sky' 21cm HI absorption survey (ASKAP-FLASH) that our team plans to begin next year.

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