

Radio 2017



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Faraday rotation at low frequencies

Thursday, October 5, 2017 2:00 PM (15 minutes)

I will present a low-frequency, broadband polarisation study of the FR II radio galaxy PKS J0636–2034 ($z = 0.0551$), using data from the Murchison Widefield Array (MWA) from 70 to 230 MHz. The large, continuous wavelength-squared coverage across the MWA band allows the polarisation and Faraday rotation properties to be determined with a precision approximately two orders of magnitude better than traditional cm-wavelength radio interferometers. A combination of rotation measure synthesis and broadband polarisation model-fitting are used to constrain the Faraday depolarisation properties of the source to very high accuracy.

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