

Radio emission from exoplanets: GMRT observations and results

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Abstract

Massive extrasolar planets are expected to emit, in analogy with Jupiter and Saturn, detectable radio emission at low frequencies. We have carried out a series of observations of known extrasolar planetary systems at 150 MHz with the Giant Meterwave Radio Telescope (GMRT) in both interferometric and phased array modes. We will describe our observing campaign, target list, and preliminary results from studies of dynamic spectra. As low frequency observations are plagued with RFI, we will focus on observing strategies and analysis techniques to minimize, identify and remove RFI effects from dynamic spectra. We will also briefly discuss prospects for similar searches with future instruments such as LOFAR, the LWA, and the SKA instruments.