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Search for radio emission from exoplanets: dynamic spectra from GMRT observations

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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 latest results from studies of high time and frequency resolution 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 new low frequency radio telescope arrays such as LOFAR, the LWA, and the future SKA instrument.