

Low frequency radio emission from magnetic exoplanets and RFI combating strategies

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Massive extrasolar planets are expected to emit, in analogy with Jupiter and Saturn, detectable radio emission at low frequencies. A number of radio campaigns have been undertaken focusing in particular on nearby hot Jupiters. As of yet, no confirmed detection has been reported in the literature. One of the potential issues limiting instrument sensitivity is the presence of radio frequency interference (RFI). Low frequency observations are plagued with RFI and a considerable amount of effort is needed to “clean” the data before attempting to search for presence of astrophysical signals. In this talk we present some strategies for combating RFI with analysis techniques to minimize, identify and remove RFI effects from dynamic spectra. We will discuss the implementation of these techniques in the context of observations carried out at the GMRT and LOFAR.