An extended, diffuse low surface brightness radio emission

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Extended abstract

We would present our efforts to map extended diffuse radio emission using the Giant Metrewave Radio Telescope in order to achieve high sensitivity, high resolution, high dynamic range mapping of extended sources at low radio frequencies. The performance will be illustrated using a case study, several low frequency maps of the Coma cluster of galaxies. Efforts presented here, utilises uGMRT data reduced and analysed using (i) real-time RFI excision, a feature incorporated in the upgraded GMRT wideband backend and (ii) manual exercise. We will present a comparison of these efforts.