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Automated Approaches to RFI Flagging KARTHIK GARIMELLA, Hendrix Coll, KUMAR GOLAP, EMMANUEL MOMJIAN, National Radio Astronomy Observatory — It is known that Radio Frequency Interference (RFI) is a major issue in centimeter wavelength radio astronomy. Radio astronomy software packages include tools to excise RFI; both manual and automated utilizing the visibilities (the uv data). Here we present results on an automated RFI flagging approach that utilizes a uv-grid, which is the intermediate product when converting uv data points to an image. It is a well known fact that any signal that appears widespread in a given domain (e.g., image domain) is compact in the Fourier domain (uv-grid domain), i.e., RFI sources that appear as large scale structures (e.g., stripes) in images can be located and flagged using the uv-grid data set. We developed several automated uv-grid based flagging algorithms to detect and excise RFI. These algorithms will be discussed, and results of applying them to measurement sets will be presented.

Karthik Garimella
Hendrix Coll

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