

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Continuum
 Observation Category: Extragalactic
 Total Time Requested: 50 Hours
 Minimum Useful Time: 2 hrs

Proposal Title: Extended Imaging of Diffuse Intergalactic 430-MHz Emission in the Perseus-Pisces Supercluster region

ABSTRACT:

We request to extend, at 430 MHz, the 230 deg² area we observed in the Perseus-Pisces supercluster region (projects A2125 and A2415) in order to cover a large variety of environments ranging from cluster over filament to void locations. Our previous observations revealed strong correlation between the galaxy distribution in the supercluster region as obtained from the 2MRS and extended radio emission. DRAO interferometer night-time observations are scheduled for fall this year to match the AO field extensions. The AO and DRAO data will be combined to remove confusion by discrete sources and to search for intergalactic synchrotron radiation on all scales down to 4 arcmin. This method has already led to successful detection of diffuse radio emission in the Coma supercluster. Our proposed observations are able to place stringent constraints on the origin and evolution of cosmic magnetic fields.

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Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

430 G

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned