

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Continuum
 Observation Category: Extragalactic
 Total Time Requested: 21.5 Hours

Proposal Title: Imaging Diffuse Intergalactic 430 MHz Emission in an 8deg x8deg Zone of the Perseus-Pisces Supercluster

ABSTRACT:

This proposal is to image, at 430 MHz, an 8deg x 8deg intergalactic field in the Perseus-Pisces supercluster, in a zone where galaxy redshift data show 2 or more intersecting LSS filaments. This same field is being imaged by us with the DRAO Interferometer, where night-time observations have been approved for this fall. The AO and DRAO data will be combined to remove confusing discrete sources, and to search for faint synchrotron radiation on *all* angular scales from 4' to 8 degrees. We will repeat last year's AO+DRAO observing strategy and data reduction techniques that we developed for this purpose. This led to the successful detection of diffuse radio glow in part of the Coma supercluster and serves to demonstrate that the observations proposed here can detect confusion-free fluctuations of intergalactic radio glow that are not far above the CMB background level.

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Service Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

430 G

Atmospheric Observation Instruments:

Special Equipment or setup: none required

RFI Considerations

Frequency Ranges Planned

422-442 MHz