Observing Application

Date:Apr 5, 2007
Proposal ID:VLA/07B-249
Legacy ID:AF459
PI: Vincent Fish
Type:Rapid Response
Exploratory Time
Category: Galactic
Total time: 2.5 hour

What's Unique About ON 1 North?

Abstract:

We propose to image the 6035 MHz masers in ON 1. This will be first interferometric map that includes the highly blueshifted masers, expected to be located to the north of the source. Our goals are to confirm this location as well as determine the magnetic field strength in the region. Single-dish observations of the blueshifted 6035 and 13441 MHz masers have been inconclusive, because there are ambiguities as to which features form Zeeman pairs. An interferometric map will resolve these ambiguities and point us toward the solution of why 1) ON 1 has such an odd maser spectrum and 2) significant maser activity in the excited-state 6035 and 13441 MHz transitions is accompanied by only weak masers in the ground state.

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Joint:

Not a Joint Proposal

Observing type(s):

Single Pointing(s), Spectroscopy, *

Resources:

Resource name	Tele. Conf.	Frontend & Backend	Set up
OH 6035	VLA A	C Band 6 cm 4500 - 5000 MHz VLA Correlator - Spectral Line	IF mode: 2 Bandwidth: 0.78125 MHz Number of channels: 256 Spectral resolution: 3.052 kHz Rest frequencies: 6035.092 MHz

Sources:

Source name	RA / RA Range	DEC / DEC Range	System	Velocity/z	Group name
ON 1	20:10:09.7 00:00:00.0	+31:31:34 00:00:00	J2000	+11.6 km/s	

Sessions:

Session Name	Session Time	Repeat	Separation	LST Minimum	LST Maximum	Elevation Minimum
Observations	2.5 hours	1	0 day	15:00:00	23:00:00	0

Session Constraints:

Session Name	Constraint	Comments
Observations		

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
Observations	ON 1/	OH 6035	2.5 hour	15mJy/bm

Total Time per Configuration:

Configuration	Total Time
A	2.5

Present for observation: no Staff support: None