



Observing Application

Date : Oct, 21 2007
Proposal ID : VLA/08B-101
Legacy ID : AE167
PI : Simon Ellingsen
Type : Rapid Response - Exploratory Time
Category : Galactic
Total Time : 3.0

Extremely rapid variations in the OH masers in Mon R2

Abstract:

We have detected rapid (2 hour timescale) variability in the 4765 MHz OH masers in Mon R2. We are seeking 3.5 hours time to at the VLA to determine if there is a time delay in the intensity pattern observed at the VLA and ATCA which will allow us to determine whether the variability is due to interstellar scintillation. If this is the case then the presence of different maser spots and possibly also different transitions will provide a unique opportunity for studying scintillation through multiple nearby lines of sight.

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Related proposals:

Joint:

Not a Joint Proposal

Observing type(s):

Polarimetry, Spectroscopy, Monitoring

VLA Resources

Name	Conf.	Frontend & Backend	Setup
HighRes	B	C Band 6 cm 4200-7700 MHz VLA Correlator - Spectral Line	Rest frequencies: 4765.562 MHz Bandwidth: 0.78125 MHz Spectral resolution: 1.526 kHz IF Mode: 1 No. of Channels: 512

Sources:

Name	RA / RA Range	Dec / Dec Range	Epoch	Velocity / z	Group
MonR2	06:05:21.6 00:00:00.0	-6:22:27 00:00:00	B1950	Velocity : 10.00	Mon R2

Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
TimeDelay	3.00	1	0 day	07:30:00	11:00:00	12

Session Constraints:

Name	Constraints	Comments
TimeDelay	Must be coordinated with ATCA observations, as overlap in time is essential	Need to achieve sensitivity of around 0.1 Jy in 1 minute to be able to detect intensity changes on necessary timescale

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
TimeDelay	MonR2	HighRes	3.0 hour	10 mJy/bm

Present for observation: no

Staff support: None

Plan of Dissertation: no