Observing Application

A New Radio Transient Toward the Galactic Center

Abstract:

We have detected a new radio transient, GCRT J1742-3001, toward the Galactic center in 235 MHz observations taken with the GMRT from 2006 - 2007. This ~50 mJy source is unresolved and was detected in a 17 July 2006 observation and four Spring 2007 observations. It is not detected in several other 2006 GMRT observations at 235 MHz nor in any of our 2006 VLA monitoring program (AH894) observations at 330 MHz. We request one 2-hr observation of VLA time in order to search for emission at 330 MHz and 1.4 GHz and to constrain the current timescale of that emission. Together with additional 235 MHz observations proposed to the GMRT, new detections will yield spectral information that is key to understanding the nature of this source.

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Related proposals:

Joint:

Not a Joint Proposal

Observing type(s):

GBT Resources

Sources:

Name	RA / RA Range	Dec / Dec Range	Epoch	Velocity / z	Group
GCRT J1742-3001	17:42:04 00:00:01.0	-30:01:42 00:00:10	J2000	Velocity : 0	Unspecified Group

Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
GCRT J1742-3001	2.00	1	0 day	00:00:00	24:00:00	0

Session Constraints:

Name	Constraints	Comments
GCRT J1742-3001	We request A, A-->BnA, or BnA configuration.	We will observe in dual frequency LP mode.

Session Source/Resource Pairs:

Present for observation: no   Staff support: None