



Observing Application

Date : Sep, 08 2009
 Proposal ID : VLA/09B-214
 Legacy ID : AS1002
 PI : Alicia Soderberg
 Type : Rapid Response - Target of Opportunity
 Category : Extragalactic
 Total Time : 1.5

A Newly Identified LBV Candidate at 6 Mpc

Abstract:

A possible supernova was discovered on 2009 Aug 18 in nearby galaxy UGC 2773 (6 Mpc) with an absolute magnitude of $V = -13$ mag. Pre-discovery HST imaging and recent spectroscopy indicate that the transient source is likely an eruption from a Luminous Blue Variable star plowing through previously ejected material in the immediate environment. LBVs with recurrent outbursts have been shown to have detectable radio counterparts (e.g., SN 1961V) but have been poorly observed due to their rarity. Here we propose radio observations to search for a non-thermal counterpart to this newly identified LBV candidate. Finally we note that there is NO connection between this proposal and that recently approved for LBV-candidate SN2009ip (AS1001). The discovery of two LBV candidates within just a few weeks of each other is entirely a (very fortunate!) coincidence.

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Related proposals:

Joint:

Not a Joint Proposal

Observing type(s):

Continuum

VLA Resources

Name	Conf.	Frontend & Backend	Setup
xband	C	X Band 3.6 cm 8080 - 8750 MHz VLA Correlator - Single Channel Continuum	Rest frequencies: 8435.1, 8485.1 MHz Bandwidth: 50 MHz

Name	Conf.	Frontend & Backend	Setup
kband	C	K Band 1.3 cm 18000 - 26500 MHz VLA Correlator - Single Channel Continuum	Rest frequencies: 22485.1,22435.1 MHz Bandwidth: 50 MHz

Sources:

Name	RA / RA Range	Dec / Dec Range	Epoch	Velocity / z	Group
UGC 2773-OT	03:32:07.0 00:00:00.1	+47:47:39 00:00:01	J2000	Redshift : 0.00077	UGC 2773

Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
xband	0.50	1	0 day	23:00:00	06:00:00	0
kband	1.00	1	0 day	23:00:00	06:00:00	0

Session Constraints:

Name	Constraints	Comments

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit	Subarray
xband	UGC 2773-OT	xband	0.5 hour	0.1 mJy/bm	
kband	UGC 2773-OT	kband	1.0 hour	0.1 mJy/bm	

Present for observation: no

Staff support: None

Plan of Dissertation: no