



Observing Application

Date : Jan, 07 2013
 Proposal ID : VLA/12B-410
 Legacy ID : AK814
 PI : Elmar Koerding
 Type : Director's Discretionary
 Time - Target of Opportunity
 Category : Energetic Transients and Pulsars
 Total Time : 5.0

Is the optical transient SSS130101:122222-311525 the most radio bright known CV?

Abstract:

On 2013 January 4 the Catalina Real-time Transient Survey (CRTS) reported the detection of the bright optical transient SSS130101:122222-311525 by the Siding Spring Survey and noted its potential match with NVSS J122222-311529. Our team has established that the optical source is an SU UMa cataclysmic variable (CV) of the WZ Sge-like variety undergoing a superoutburst. Here we propose to study this outburst in the radio domain to test whether this SU UMa CV is the brightest ever detected CV at radio frequencies.

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Related proposals:

Joint:

Not a Joint Proposal

Observing type(s):

Continuum

VLA Resources

Name	Conf.	Frontend & Backend	Setup
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Name	Conf.	Frontend & Backend	Setup
C-band	Any	C Band 6 cm 4000-8000 MHz WIDAR OSRO, Full Polarization	Rest frequencies: 5000.0,7500.0 MHz Subband Bandwidth: 128.0 MHz No. of Channels: 64 Poln. products: 4.0 Channel Width: 2000.0 kHz Total Bandwidth: 2,048.00 MHz

Sources:

Name	Position		Velocity		Group	
J122222-311529	Coordinate System	Equatorial	Convention	Radio		
	Equinox	J2000		Ref. Frame	LSRK	
	Right Ascension	12:22:22.3	Velocity		0.00	
		00:00:00.0				
	Declination	-31:15:30.0			NVS J122222-311529	
Calibrator	No					

Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
SSSJ1222 monitor	1.00	3	7 day	10:00:00	15:00:00	10
SSSJ1222 quiescence	2.00	1	90 day	10:00:00	15:00:00	10

Session Constraints:

Name	Constraints	Comments
SSSJ1222 monitor	First observation to be taken as soon as possible. Subsequent observations to be taken after 3 days and after 3 weeks.	If any of the epochs results in a non-detection, subsequent epochs will not be observed.
SSSJ1222 quiescence	Observation to be taken 3 months after the first epoch.	Will not be observed in the case of a non-detection in any of the first 3 epochs.

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit	Subarray
SSSJ1222 monitor	J122222-311529	C-band	1.0 hour	0.006 mJy/bm	
SSSJ1222 quiescence	J122222-311529	C-band	2.0 hour	0.004 mJy/bm	

Present for observation: no

Staff support: None

Plan of Dissertation: no