



# Observing Application

Date : Sep, 04 2007
Proposal ID : VLA/07C-251
Legacy ID : AO224
PI : Rachel Osten
Type : Rapid Response - Target of Opportunity
Category : Stellar
Total Time : 3.00

## Radio Emission from the Outburst of HS2331+3905: the Brown Dwarf/GCRT

### Abstract:

The dwarf nova HS 2331+3905 is currently undergoing its first observed, very rapid outburst. This system is composed of a pulsating white dwarf accreting material from a brown dwarf secondary, in a short orbital period of only 81 minutes. We seek to determine if this system is capable of producing detectable levels of radio emission during its outburst phase, and if such emissions are periodic in nature. This system provides key links between ideas proposed to explain galactic center radio transients as well as behaviors in periodic radio emissions seen in nearby field brown dwarfs.

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### Related proposals:

### Joint:

Not a Joint Proposal

### Observing type(s):

Continuum, Single Pointing(s), Monitoring, Triggered Transient

### GBT Resources

### Sources:

Name	RA / RA Range	Dec / Dec Range	Epoch	Velocity / z	Group
HS2331+3905	23:34:01.4 0:00:00	+39:21:41.0 00:00:00	J2000	Velocity : 0	Unspecified Group

**Sessions:**

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
HS2331-X	3.00	1	0 day	00:00:00	24:00:00	0

**Session Constraints:**

Name	Constraints	Comments
HS2331-X	Should be scheduled as soon as possible, to catch the outburst during or shortly after its optical peak (which is expected to occur sometime on Sep. 5th).	

**Session Source/Resource Pairs:**


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 Present for observation:    yes

Staff support: None