



# Observing Application

Date : Oct, 08 2008  
 Proposal ID : VLA/08C-241  
 Legacy ID : AV310  
 PI : Guido van der Wolk  
 Type : Rapid Response - Target  
 of Opportunity  
 Category : Extragalactic  
 Total Time : 1.0

## Supernova Candidate in NGC5448

### Abstract:

From analyzing recent Spitzer Space Telescope data of the barred spiral galaxy NGC5448, we deduce that a type II supernova has gone off in its Eastern outer spiral arm. The supernova is highly dust-obscured by its outer shells, and emits copiously at infrared wavelengths, especially at colder dust temperatures. The presence of large amounts of cold dust, indicates that the supernova is 500 to 650 days after its outburst. This means that the object emits bright synchrotron emission by now and will continue to do so for a long time. In order to obtain confirmation of the supernova we request for three quick look VLA maps. One hour of observing time will suffice for our purposes.

### Authors:

Name	Institution	Email	Status
Guido van der Wolk	Kapteyn Astronomical Institute	wolk@astro.rug.nl	Graduating: N/A Thesis: false
Peter Barthel	Kapteyn Astronomical Institute	pdb@astro.rug.nl	
Reynier Peletier	Kapteyn Astronomical Institute	peletier@astro.rug.nl	

Principal Investigator: Guido van der Wolk  
 Contact: Guido van der Wolk  
 Telephone: +31-622105004  
 Email: wolk@astro.rug.nl

### Related proposals:

### Joint:

Not a Joint Proposal

### Observing type(s):

Continuum

### VLA Resources

Name	Conf.	Frontend & Backend	Setup
NGC5448-L	A	L Band 20 cm 1000 - 2000 MHz  VLA Correlator - Single Channel Continuum	Rest frequencies: 1464.9,1385.1 MHz Bandwidth: 50 MHz

Name	Conf.	Frontend & Backend	Setup
NGC5448-C	A	C Band 6 cm 4200-7700 MHz VLA Correlator - Single Channel Continuum	Rest frequencies: 4885.1,4835.1 MHz Bandwidth: 50 MHz
NGC5448-X	A	X Band 3.6 cm 8080 - 8750 MHz VLA Correlator - Single Channel Continuum	Rest frequencies: 8435.1,8485.1 MHz Bandwidth: 50 MHz

### Sources:

Name	RA / RA Range	Dec / Dec Range	Epoch	Velocity / z	Group
NGC5448	14:02:50.3 00:00:00.0	+49:10:20 00:00:00	J2000	Redshift : 0.006711	SN in NGC5448

### Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
NGC5448, LCX	0.99	1	0 day	10:00:00	18:00:00	0

### Session Constraints:

Name	Constraints	Comments

### Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit	Subarray
NGC5448, LCX	NGC5448	NGC5448-L	0.33 hour	0.061 mJy/bm	
NGC5448, LCX	NGC5448	NGC5448-C	0.33 hour	0.058 mJy/bm	
NGC5448, LCX	NGC5448	NGC5448-X	0.33 hour	0.049 mJy/bm	

Present for observation: no

Staff support: None

Plan of Dissertation: no