



Observing Application

Date: May 22, 2007
Proposal ID: VLA/07B-277
Legacy ID: AP534
PI: Miguel Perez-Torres
Type: Rapid Response
Exploratory Time
Category: Extragalactic
Total time: 2.0 hour

Radio Emission from Supernova 2004ip in the Galaxy IRAS 18293-3413

Abstract:

We propose X-band VLA observations in A-configuration of the recently discovered supernova SN 2004ip in the circumnuclear starburst of the nearby luminous infrared galaxy IRAS 18293-3413. The supernova was discovered at an angular distance of 1.4 arcsec from the galaxy nucleus, corresponding to about 500 pc projected distance, using near-infrared, adaptive optics observations with the VLT. Despite the time elapsed since its infrared discovery, the supernova is likely to be detectable in the radio. For example, SN 2000ft (located within a circumnuclear starburst of its luminous infrared galaxy host) is still detectable with VLA even six years after its discovery. Our observations aim at the first radio detection of SN 2004ip, which would confirm its core-collapse origin and, if bright enough, allow for a follow-up of its decaying radio emission to characterize the supernova-circumstellar medium interaction within the likely dense and dusty circumnuclear starburst environment.

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Joint:

Not a Joint Proposal

Observing type(s):

Continuum, *

Resources:

Resource name	Tele. Conf.	Frontend & Backend	Set up
vla-a-xband	VLA A	X Band 3.6 cm 8080 - 8750 MHz VLA Correlator - Single Channel Continuum	Bandwidth: 50 MHz Rest frequencies: 8435.1,8485.1 MHz

Sources:

Source name	RA / RA Range	DEC / DEC Range	System	Velocity/z	Group name
sn2004ip	18:32:41.3 00:00:00.0	-34:11:26 00:00:00	J2000	0 km/s	

Sessions:

Session Name	Session Time	Repeat	Separation	LST Minimum	LST Maximum	Elevation Minimum
sn04ip-x-vlaa1	2.0 hours	1	0 day	15:30:00	21:30:00	0

Session Constraints:

Session Name	Constraint	Comments
sn04ip-x-vlaa1		

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
sn04ip-x-vlaa1	sn2004ip/	vla-a-xband	2.0 hour	0.016mJy/bm

Total Time per Configuration:

Configuration	Total Time
A	2.0

Present for observation: no Staff support: Consultation