



Observing Application

Date : Jan, 07 2008
Proposal ID : VLA/08B-113
Legacy ID : AM950
PI : Brian Metzger
Type : Rapid Response -
Exploratory Time
Category : Extragalactic
Total Time : 3.5

Late Time Radio Emission from SGRBEEs

Abstract:

The central engines of short gamma-ray bursts with extended emission (SGRBEEs) are unknown. The recently published model of Metzger, Quataert & Thompson argues that SGRBEEs result from the creation of proto-magnetars. The event leads to a relativistic wind which can be detected at late times through radio emission. We propose VLA observations of 7 SGRBEEs which have predicted fluxes in the range 0.1 to 10 mJy. Exploratory time is appropriate for these observations because of the relatively modest time request and the potentially large significance of verification of the model in a highly competitive field.

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Related proposals:

Joint:

Not a Joint Proposal

Observing type(s):

Continuum

VLA Resources

Name	Conf.	Frontend & Backend	Setup
Cont_LBand	B	L Band 20 cm 1200 - 2000 MHz VLA Correlator - Single Channel Continuum	Rest frequencies: 1464.9, 1385.1 MHz Bandwidth: 50 MHz

Sources:

Name	RA / RA Range	Dec / Dec Range	Epoch	Velocity / z	Group
GRB050724	16:24:44.4 00:00:00.0	-27:32:27 00:00:00	J2000	Velocity : 0.00	SGRBEE_C
GRB050709	23:01:26.1 00:00:00.0	-38:58:39 00:00:00	J2000	Velocity : 0.00	SGRBEE_A
GRB051221A	21:54:48.6 00:00:00.0	+16:53:27 00:00:00	J2000	Velocity : 0.00	SGRBEE_A
GRB060505	22:07:03.4 00:00:00.0	-27:48:51 00:00:00	J2000	Velocity : 0.00	SGRBEE_A
GRB051227	08:20:58.1 00:00:00.0	+31:55:31 00:00:00	J2000	Velocity : 0.00	SGRBEE_B
GRB060313	04:26:28.4 00:00:00.0	-10:50:40 00:00:00	J2000	Velocity : 0.00	SGRBEE_B
GRB070714B	03:51:22.2 00:00:00.0	+28:17:51 00:00:00	J2000	Velocity : 0.00	SGRBEE_B

Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
SGRBEE_A	1.50	1	0 day	00:00:00	24:00:00	0
SGRBEE_B	1.50	1	0 day	00:00:00	24:00:00	0
SGRBEE_C	0.50	1	0 day	00:00:00	24:00:00	0

Session Constraints:

Name	Constraints	Comments
SGRBEE_A		3 sources
SGRBEE_B		3 sources
SGRBEE_C		1 source

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
SGRBEE_A	GRB050709 GRB051221A GRB060505	Cont_LBand	1.5 hour	0.050 mJy/bm
SGRBEE_B	GRB051227 GRB060313 GRB070714B	Cont_LBand	1.5 hour	0.050 mJy/bm
SGRBEE_C	GRB050724	Cont_LBand	0.5 hour	0.050 mJy/bm

Present for observation: no

Staff support: None

Plan of Dissertation: no