



Observing Application

Date : Apr, 02 2012
 Proposal ID : VLA/12A-464
 Legacy ID : AC1107
 PI : Poonam Chandra
 Type : Director's Discretionary
 Time - Exploratory Time
 Category : Energetic Transients and
 Pulsars
 Total Time : 8.0

JVLA DDT request for SN 2010jl radio observations

Abstract:

This is a request for JVLA DDT followup observations of a Type II supernova (SN) 2010jl that we have recently detected with the EVLA in 8.5 GHz band. We have also observed and detected the supernova in X-ray bands with ChandraXO at two epochs and have shown the dramatic evolution of the absorption. This is a DDT request for SN 2010jl observations for a total of 8 hours in JVLA K, X and C bands in JVLA semesters 2012A, 2012B and 2013A.

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Related proposals:

10C-155, 12A-058

Joint:

Not a Joint Proposal

Observing type(s):

Continuum, Single Pointing(s)

VLA Resources

| Name | Conf. | Frontend & Backend | Setup |
|------|-------|--------------------|-------|
|------|-------|--------------------|-------|

| Name | Conf. | Frontend & Backend | Setup |
|--------|-------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| K band | Any | K Band 1.3 cm 18000 - 26500 MHz WIDAR OSRO, Full Polarization | Rest frequencies: 21500.0,22500.0 MHz Subband Bandwidth: 64.0 MHz No. of Channels: 64 Poln. products: 4.0 Channel Width: 1000.0 kHz Total Bandwidth: 1,024.00 MHz |
| X band | Any | X Band 3.6 cm 8000 - 12000 MHz WIDAR OSRO, Full Polarization | Rest frequencies: 8500.0,9500.0 MHz Subband Bandwidth: 64.0 MHz No. of Channels: 64 Poln. products: 4.0 Channel Width: 1000.0 kHz Total Bandwidth: 1,024.00 MHz |
| C Band | Any | C Band 6 cm 4000-8000 MHz WIDAR OSRO, Full Polarization | Rest frequencies: 5000.0,6000.0 MHz Subband Bandwidth: 64.0 MHz No. of Channels: 64 Poln. products: 4.0 Channel Width: 1000.0 kHz Total Bandwidth: 1,024.00 MHz |

Sources:

| Name | Position | | Velocity | | Group |
|----------|-------------------|---------------------------|------------|-------|-------|
| SN2010jl | Coordinate System | Equatorial | Convention | Radio | SN |
| | Equinox | J2000 | | | |
| | Right Ascension | 09:42:53.32 00:00:00.0 | Ref. Frame | LSRK | |
| | Declination | +09:29:41.7 00:00:00.0 | Velocity | 0.00 | |

Sessions:

| Name | Session Time (hours) | Repeat | Separation | LST minimum | LST maximum | Elevation Minimum |
|----------|----------------------|--------|------------|-------------|-------------|-------------------|
| 2010jl-K | 1.00 | 4 | 90 day | 07:00:00 | 12:00:00 | 0 |
| 2010jl-X | 0.50 | 4 | 90 day | 07:00:00 | 12:00:00 | 0 |
| 2010-C | 0.50 | 4 | 90 day | 07:00:00 | 12:00:00 | 0 |

Session Constraints:

| Name | Constraints | Comments |
|------|-------------|----------|
| | | |

Session Source/Resource Pairs:

| Session Name | Source | Resource | Time | Figure of Merit | Subarray |
|--------------|----------|----------|----------|-----------------|----------|
| 2010jl-K | SN2010jl | K band | 1.0 hour | 0.015 mJy/bm | |
| 2010jl-X | SN2010jl | X band | 0.5 hour | 0.010 mJy/bm | |
| 2010-C | SN2010jl | C Band | 0.5 hour | 0.012 mJy/bm | |