Observing Application

Date :	Mar, 30 2011
Proposal ID :	VLA/11A-260
Legacy ID :	AL785
PI :	Hauyu Liu
Type :	Director's Discretionary Time - Target of Opportunity
Category :	Star Formation
Total Time :	2.0

The Origin of Jets in YSOs: The Case Study of the FU Ori Star [CTF93] 216-2

Abstract:

Collimated Jets are one of the most spectacular astrophysical phenomena, and are ubiquitously seen in star forming regions. Theoretical models suggest that the mass-loss rates of jets are associated with the accretion rates of the young stellar objects (YSOs). We want to test this idea by simultaneously monitoring the variability of the thermal radio jet and the optical/near-infrared (OIR) accretion luminosities of a recently discovered FU Ori outburst. In such an extremely active accretion events (e.g., FU Ori, EX Ori outbursts), immediate constraints on the jet mechanisms can be obtained from the presence (or absence) of correlated variations of the radio flux/spectral-indices with the accretion luminosity and the flux of the Br gamma line.

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Related proposals:

AL777

Joint:

Not a Joint Proposal

Observing type(s):

Continuum, Polarimetry, Single Pointing(s)

VLA Resources

Name	Conf.	Frontend & Backend	Setup
Cband	Any	C Band 6 cm 4000-8000 MHz WIDAR RSRO	Comments: null
Kband	Any	K Band 1.3 cm 18000 - 26500 MHz WIDAR RSRO	Comments: null
Qband	D	Q Band 0.7 cm 40000 - 50000 MHz WIDAR RSRO	Comments: null

Sources:

Name	Position		Velocity		Group
CTF93	**Coordinate System**	Equatorial	**Convention**	Radio	CTF93 216-2
	Equinox	J2000			
	Right Ascension	05:42:48.48	**Ref. Frame**	LSRK	
		00:00:00.0			
	Declination	-8:16:34.7	**Velocity**	0.00	
		00:00:00.0			

Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
Cband	1.00	1	0 day	02:00:00	10:00:00	0
Kband	1.00	1	0 day	02:00:00	10:00:00	0

Session Constraints:

Name	Constraints	Comments

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit	Subarray
Cband	CTF93	Cband	1.0 hour	0.005 mJy/bm	
Kband	CTF93	Kband	1.0 hour	0.005 mJy/bm	

Present for observation: yes Staff support: Friend Plan of Dissertation: no