Observing Application

Date :	Nov, 02 2012
Proposal ID :	VLA/12B-398
Legacy ID :	AB1466
PI :	Peter Barthel
Type :	Director's Discretionary Time - Exploratory Time
Category :	High Redshift and Source Surveys
Total Time :	1.0

The radio structure of lensing radio galaxy 3C220.3

Abstract:

The z=0.68 host galaxy of FR2 radio source 3C220.3 appears to be lensing a background submm galaxy, as manifested by luminous cold dust emission very recently detected by Herschel, and an Einstein arc seen on an archive HST image. Better understanding of the lensing geometry requires precise positioning of the lens which we here seek to achieve through a high resolution radio image. We propose to make a 1-hr observation of 3C220.3 (B0943+83) with the VLA in its A-array at X-band. The fact that A-array will not reappear before 2014 implies a proposal under DDT.

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Related proposals:

Joint:

Not a Joint Proposal

Observing type(s):

Continuum

VLA Resources

Name	Conf.	Frontend & Backend	Setup
DDT_3C220.3	A	X Band 3.6 cm 8000 - 12000 MHz WIDAR OSRO, Dual Polarization	Rest frequencies: 8500.0,9500.0 MHz Subband Bandwidth: 128.0 MHz No. of Channels: 128 Poln. products: 2.0 Channel Width: 1000.0 kHz Total Bandwidth: 2,048.00 MHz

Testing Resource Images

Sources:

Name	Position		Velocity		Group
3C220.3	**Coordinate System**	Equatorial	**Convention**	Optical	radio galaxy
	Equinox	J2000			
	Right Ascension	09:39:22.5	**Ref. Frame**	Barycentric	
		00:00:00			
	Declination	+83:15:24.0	**Velocity**	0.0	
		00:00:00			

Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
DDT_3C220.3	1.00	1	0 day	07:00:00	12:00:00	0

Session Constraints:

Name	Constraints	Comments
DDT_3C220.3		Will do 2 or 3 scans, plus calibrators, in one hour, at optimal elevation please.

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit	Subarray
DDT_3C220.3	3C220.3	DDT_3C220.3	1.0 hour	0.005 mJy/bm	

Present for observation: no Staff support: Consultation Plan of Dissertation: no