VLBA PROPOSAL COVERSHEET

rcvd:

DEADLINES: Any Time
EMAIL TO: toosoc@nrao.edu
OR MAIL TO: Director NRAO, Edgemont Rd. Charlottesville, VA 22903-2475, USA

(1) Date Prepared: September 24, 2004

(2) Title of Proposal: Target of Opportunity: VLA + VLBA observations of HR1099 during a radio burst

(3) AUTHORS (Add * for new location)	INSTITUTION	E-mail	G/U	Students Only For Thesis?	Students Only Ph.D. Year
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(4) Related previous or current VLBI proposal(s): BT25 ◯ Resubmission

(5) Contact author for scheduling: Umana, G.
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(7) Scientific Category: ◯ astrometry & geodesy ⊗ galactic ◯ extragalactic ◯ other:
Rapid Response Science: ◯ Known Transient ◯ Exploratory ⊗ Target of Opportunity

(8) Wavelength(s) requested (those not available on the global network are indicated with a small circle):
◯ 90cm ◯ 50cm ∘ 30cm ⊗ 21cm ◯ 18cm ◯ 13cm ◯ 6cm ∘ 5cm ⊗ 3.6cm ◯ 3.6/13cm
⊗ 2cm ⊗ 1.3cm ◯ 7mm ∘ 3mm
◯ Global Network standard bands ◯ Special frequencies:________

(9) Recording format: ⊗ Default continuum setup (VLBA only), ◯ VLBA/MkIV, ◯ MkIII: Mode______
Bandwidth per BaseBand channel: ______
Aggregate bit rate:______ (______ BB channels at ______ MSamples/sec of ◯ 1 bit, ◯ 2 bit)

(10) ◯ Multi-epoch observation: ______ epochs of ______ hours each, separated by ______

(11) Network	Requested antennas	Total time requested
EVN & MERLIN		
VLBA	ALL	12 hours
other NRAO	Y27	12 hours
Non-VLBI Intruments		

(12) ABSTRACT (Do not write outside this space. Please type)
We propose to carry out TOO observations of the RS CVn type system HR1099, which, at the moment, is in an extreme high level of activity, as revelead by single dish radio (6 cm) observations. We ask for both high resolution (VLBA) and spectral (VLA) observations. This is an unique possibility to gather information on the source radio morphology as well as spectral evolution during the most energetic events. The results of such a project would have profound implications on the study of stellar coronae and, more in general, on the physics of plasma.

Scheduler use only
(8/03)

(13) Observation type: ⊗ Interferometry, ◯ Spectroscopy, ◯ Pulsar, ⊗ Phase referencing

(14) Proposal is ⊗ Suitable ◯ Unsuitable for dynamic scheduling.

(15) Polarization: ◯ Single Polarization ⊗ Dual Circular Polarization
Global network standard for single polarization is LCP for all λs except 13cm (RCP) and 3.6cm (RCP).

(16) Tape usage (Show <recording time>/<total time>): ______

(17) Assistance required:
Observation Setup: ◯ Consultation, ◯ Extensive help, ◯ Observe file preparation
Postprocessing: ◯ Consultation, ◯ Extensive help, ◯ Calibration service

(18) Processor: ⊗ Socorro, ◯ JIVE, ◯ Haystack, ◯ Bonn, ◯ Washington, ◯ Other____________
Special processing: ◯ XPol, ◯ Pulsar gate, ◯ Multiple Fields: ______
Averaging time: ______ Spectral channels per baseband channel: ______
◯ Other special processing: ______________________________

(19) Postprocessing Location: Noto

(20) Source list: ⊗ J2000 ◯ B1950
If more than 4 sources, please attach list. If more than 30, give only selection criteria and GST range(s)

	Source 1	Source 2	Source 3	Source 4
Name(s)	HR 1099			
RA (hh mm)	03 36 47.29			
Dec (dd.d)	+00 35 15.9			
GST range (Europe)				
GST range (US)	03 - 15			
GST range (Other)				
Band(s)				
Flux density (Total, Jy)	0.400 - 0.900			
Flux density (correlated, mJy)	> 50			
RMS needed (mJy/beam)	< 0.1			
Peak/RMS needed	> 100			

(21) Preferred VLBI session or range of dates for scheduling, and why:

(22) Dates which are NOT acceptable, and why:

(23) Attach a self-contained scientific justification, not in excess of 1000 words.
Preprints or reprints will not be forwarded to the referees.

Information about the capabilities of the VLBA may be found on the World Wide Web by starting at the NRAO home page, http://www.nrao.edu, and selecting the VLBA from "Sites and Telescopes."

A brief summary of the capabilities of the EVN antennas is given in the EVN STATUS TABLE in the EVN USER GUIDE, which may be found at http://www.evlbi.org/user_guide/user_guide.html.

Please include the full postal addresses for first-time users or for those that have moved (if not contact author).

Toscano. S.
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