

Technical Page

Proposal Type: Urgent
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 2.25 Hours

Proposal Title: Neutral Hydrogen Observations of GRB 030329

ABSTRACT:

Target of opportunity observations are requested to measure the neutral hydrogen spectrum in absorption against the Gamma-Ray Burst (GRB) 030329. At the redshifted HI frequency of 1215 MHz, the GRB afterglow has a flux density of 3.5 mJy as of October 2003, but is fading. Detection of HI in absorption would provide important information on the fireball model of GRBs. We intend to also observe the mainlines of the OH molecule to look for the presence of absorption or maser emission.

Name	Institution	E-mail	Phone	Student
Greg Taylor	NRAO	gtaylor@nrao.edu	505-835-7000	no

Service Observing Request

Remote Observing Request

- | | |
|---|--|
| <input checked="" type="checkbox"/> None
<input type="checkbox"/> All of the observing run.
<input type="checkbox"/> Part of the observing run.
<input type="checkbox"/> Queue Observing | <input checked="" type="checkbox"/> No
<input type="checkbox"/> Maybe
<input type="checkbox"/> Yes |
|---|--|

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1209-1229 MHz

1423-1435 MHz

We request Punta Salinas to operate in their MODE C

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..

This proposal requires coordination with GPS L3 at 1381 MHz.