Technical Page

Proposal Type: Regular
General Category: Astronomy
Sub-Category: Spectroscopy
Observation Category: Extragalactic
Total Time Requested: 15 Hours

Proposal Title: Search for Water Maser Emission at High Redshift

ABSTRACT:
We propose a search for water maser emission from two gravitationally-lensed quasars, MG 0751+2716 at z = 3.20 and PSS 2322+1944 at z = 4.12. Arcsecond-resolution CO observations of both sources indicate the close proximity of molecular gas to the quasar. Multi-transition studies of PSS 2322+1944 indicate that the molecular gas is warm and dense, perhaps conducive to the formation of 22 GHz water masers similar to those found in some nearby AGN, most notably those in the Keplerian disk in NGC 4258.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
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<td>no</td>
</tr>
</tbody>
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Service Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remot e Observing Request

- No
- Maybe
- Yes

Instrument Setup

C

Atmospheric Observation Instruments:

Special Equipment or setup: WAPP

RFI Considerations
Frequency Ranges Planned

4000 - 6000