Technical Page

Proposal Type: Regular
General Category: Astronomy
Sub-Category: Spectroscopy
Observation Category: Extragalactic
Total Time Requested: 45 Hours

Proposal Title: HI observations of low redshift galaxies that have hosted a supernova

ABSTRACT:

At the end of 1997 there were 86 catalogued type Ia supernovae with recession velocities of less than 10000 km/s in the Arecibo sky. About 75% of these occur in spiral or irregular galaxies. We propose to obtain high signal-to-noise-ratio HI profiles for the 42 best-known objects as an initial study, with the intention that all will have a S/N >50, so that the 50% velocity widths have a sigma <1 km/s. These will be used to check the variance in the peak magnitudes of the SN: They will be maintained on the www.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murray Lewis</td>
<td>Arecibo Observatory</td>
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<td>787 878 2612</td>
<td>no</td>
</tr>
</tbody>
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I NA want to do remote observing.

Instrument Setup

L-narrow

Atmospheric Optical Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1360-1420

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

This proposal requires coordination with GPS L3 at 1381 MHz.