Proposal Title: HI Intensity Mapping of zCOSMOS field

ABSTRACT:
We will measure 21 cm emission at redshifts near 1 by stacking the intensity field aligned using galaxy positions taken from the zCOSMOS optical redshift survey. We will attempt to produce not just a measurement of the average HI mass in the zCOSMOS galaxies, but also a 21 cm correlation function at redshift z~1. We will further attempt to detect the HI emission by direct intensity mapping.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin Bandura</td>
<td>Carnegie Mellon University</td>
<td><a href="mailto:kbandura@andrew.cmu.edu">kbandura@andrew.cmu.edu</a></td>
<td>412-983-2636</td>
<td>G</td>
</tr>
</tbody>
</table>

Remote Observing Request

[X] Observer will travel to AO
[ ] Remote Observing
[ ] In Absentia (instructions to operator)

Instrument Setup

705-825

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

700 - 800