

### Technical Page

Proposal Type: Regular  
 General Category: Planetary Radar  
 Observation Category: Solar System  
 Total Time Requested: 117.75 Hours  
 Minimum Useful Time: 80

**Proposal Title:** Arecibo Radar Imaging of Five Strong Near-Earth Asteroids During October 2008-January 2009.

*ABSTRACT:*

We propose delay-Doppler radar imaging, physical modeling, satellite searches, and orbital refinement of near-Earth asteroids 1998 CS1, 1998 UT18, 2004 LV3, 2004 XL14, and 2005 GN59, which are strong targets during October 2008-January 2009. 2004 XL14 is an irregular, 300-m-long, slowly rotating contact binary that was observed over a limited range of orientations in 2006. 1998 UT18 is a dark, 1.5-km-sized, asymmetric C-class object that was imaged at only two orientations in 2003. The physical properties of 2004 LV3, 2005 GN59, and 1998 CS1 are unknown, but their absolute magnitudes suggest they are large enough for radar imaging to place hundreds to thousands of pixels on each object.

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#### Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

#### Instrument Setup

S-Band radar

#### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

#### RFI Considerations

## Frequency Ranges Planned