

## Technical Page

Proposal Type: Regular  
 General Category: Planetary Radar  
 Observation Category: Solar System  
 Total Time Requested: 40 Hours  
 Minimum Useful Time: 3 hours

**Proposal Title:** Radar Observations of C/2010 X1 Elenin and C/2006 T1 Levy

**ABSTRACT:**

We propose radar observations to detect large grains in the coma and to image the nucleus of two comets. C/2010 X1 Elenin is 0.23 AU from the Earth in October, 2011. We expect to obtain CW spectra of the coma of this comet, and to detect cm -sized grains in the coma if possible. We may obtain images of the nucleus if it is large enough. C/2006 T1 Levy is a periodic comet which comes to 0.18 AU from the Earth in January, 2012. If the SNR is 50 or more for either, we could get images of the nucleus to reveal its size and shape. Such opportunities are extremely rare, but have yielded very valuable information for the four comets imaged to date.

Name	Institution	E-mail	Phone	Student
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### Remote Observing Request

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

### Instrument Setup

S-Band radar                      S-band receiver

### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

### RFI Considerations

### Frequency Ranges Planned

2380 MHz