

Technical Page

Proposal Type: Urgent
 General Category: Planetary Radar
 Observation Category: Solar System
 Total Time Requested: 6.0 Hours

Proposal Title: Urgent Proposal for Arecibo Radar Imaging of near-Earth Asteroid 2006 GY2
ABSTRACT:

We propose radar imaging of recently-discovered near-Earth asteroid 2006 GY2 during its close approach within 0.017 AU on 2006 May 15-16. The proximity of the close approach and the asteroid’s diameter of about 550 m (+/- a factor of two) suggest very strong signal-to-noise ratios of about 10,000 per run that will be ideal for resolving fine detail (at resolutions of 7.5 m/pixel) on the surface, searching for satellites, and improving the asteroid’s orbit. We plan to use range-Doppler images obtained at Arecibo and Goldstone to reconstruct a detailed model of the asteroid’s three-dimensional shape and spin state, which constrain the asteroid’s origin and geologic history.

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Service Observing Request

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

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

S-Band radar

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned