



1.1 Meter Telescope

PARI Founder and President Don Cline has committed for use at PARI a mirror and system design for a 1.1 meter (44-inch) f/4.4 telescope system. When additional funds can be obtained for completion, the telescope will be one of the largest on the East Coast and will be used for several tasks:

- The search for Near Earth Objects (NEO). NEOs are rocks orbiting the Sun that cross into Earth's orbit, sometimes approaching as close as the Moon. The PARI NEO telescope would join a worldwide network of telescopes located in the U.S., Asia, and Europe.
- Observations of gamma ray bursts with the unique capability to make simultaneous spectroscopic and photometric measurements.
- Telescope time for the astronomical community for other studies, such as supernova searches and star occultation research being conducted by astronomers in North Carolina and elsewhere around the world.

Plans for this telescope include a prime focus camera with a six-inch diameter flat field image at the focus plane (1.25 degree sky diameter) corrected field of view, a fiber-fed spectrograph and offset guiders. An open structure optical tube telescope mount manufactured by DFM Engineering will be customized for the PARI 1.1 meter mirror. The telescope is designed for remote use and will be capable of simultaneous photometric and spectroscopic observations. Since NEO monitoring will be done by looking for motion relative to background stars, observations can be made even in partly cloudy weather.

To date, about \$500,000 has been invested in developing the telescope. Additional contributions of approximately \$3 million are needed to fund the telescope completion, observatory building, fiber bundles, filters and a large-area camera.