Optical Observatories

The PARI Optical Observatories are located on a mountain ridge (the PARI Optical Ridge) 500 meters south of the main campus. All telescopes and instruments are solar powered and connected to our local area network. Some can be controlled remotely while others automatically download their data to a web page.

Several of the telescopes at PARI are dedicated to specific purposes, while others are available to the astronomical community. The South Observatory houses a 0.3m telescope and camera for remote use by undergraduate students. The West Observatory includes a professional grade 0.4m telescope and research CCD plus UBVRI filter set. PARI astronomers are using another telescope dedicated to studying variations in the light from Polaris (the North Star). Polaris varies from maximum to minimum brightness over a three-day period. Recently, the amplitude of the variation has begun to change and PARI is monitoring Polaris to help understand the reason for the variation.

PARI also operates two optical solar telescopes – one images sunspots, the other images solar flares. The images are automatically downloaded to the PARI web site.

Telescopes permanently mounted on the PARI Optical Ridge:

- 0.4m optical telescope with a 2048 x 2048 pixel camera and UBVRI filter set
- 0.3m optical telescope with a 2048 x 2048 pixel CCD camera
- 12cm OVIEW Sunspot Telescope with a network camera
- 6cm OVIEW Coronado Solar Flare Telescope with a network camera
- 200mm wide field Polaris Telescope with SBIG ST10 camera
- 50cm narrow field Polaris Telescope with SBIG ST7 camera

Telescopes used for public star parties include:

- 15 cm Newtonian Telescope with eyepieces
- 27 cm Dobsonian Telescope
- 9 cm Questar with eyepieces
- Two 20 cm Celestrons with eyepieces
- 20 cm Meade with eyepieces

Future telescopes for the PARI Optical Ridge:

- 1.1 meter f/4.4 and 15cm flat field prime focus focal plane when completed
- 1.8 meter adaptive optics mirror in mirror cell
- Two 500cm Schmidt-Newtonian telescopes with rectangular 5cm x 250cm flat field focal planes