Boston University Seeks Partners in our 1.8m Perkins Telescope Observatory

The 1.8m Perkins Telescope **Observatory (PTO) in Arizona**



Boston University astronomers used the 1.8m Perkins Telescope to obtain scientific data between 1998 and 2019 under agreements with Lowell Observatory. In 2019, Boston University acquired the Perkins Telescope from Lowell Observatory and *we now own and operate* this facility, located on Anderson Mesa, 24 miles from Flagstaff, AZ. Members of the BU Astronomy faculty developed the two primary instruments that are used on the telescope: **PRISM**, which provides optical imaging, polarimetry, and spectroscopy, and Mimir, which provides near -infrared imaging, polarimetry, and spectroscopy. BU astronomers use the Perkins Telescope for a wide range of scientific studies, including monitoring studies (blazar, stellar variability, and exoplanet and exomoon studies) and the GPIPS survey of the magnetic field of the star forming disk of our Milky Way.





The Perkins Re-Imaging SysteM (PRISM)



AS102 students and Mimir Instrument on the PTO



Link to our PTO web site



Eagle Nebula's Pillars of Creation, Imaged by AS102 students using Mimir on the PTO

AS102 Students in PTO control room with College of Arts and Sciences Dean Gina Sapiro



Why Become a Partner with BU? Astronomical Research Access

- Enable new projects
- Large time blocks
 - Synodic Studies
 - ◆E.g., BU Blazar work
 - Large-Area Mapping
 - ◆E.g., GPIPS
- Scientific Collaborations
- Multi-Institutional Projects
- Shared observing
- Training / Education
- Hands-on for majors
- Hands-on for graduates
- Outreach Opportunities
 - AS100 observing
- Alumni visits / programs

Terms/Conditions?

• Flexible

- •Number of nights
- Fractional ownership (or rental-only)
- Access to LDT nights through BU allocation (e.g., swap of PTO nights for LDT nights)
- •Fixed-term or open-ended
- •MOU-based—all parties "at will"
- Who? See Dan Clemens





BU Astronomy Department contact information

Lowell Discovery Telescope



The 4.3m Lowell Discovery Telescope



Installation of the primary mirror



AS102 Students visit the LDT

The Lowell Discovery Telescope (LDT, nee DCT) is a 4.3-m Ritchey–Chrétien telescope optimized for use at optical and near infrared wavelengths. The LDT is located near the Happy Jack ranger station, about 40 miles from Flagstaff, AZ. The LDT is owned by Lowell Observatory and began operations in 2013.

Boston University purchased a *permanent capi*tal share in the LDT, solidifying an intellectual partnership between BU and Lowell Observatory for the lifetime of the telescope. Scientific investigations are carried out by BU astronomers and related outreach by BU astronomers, faculty, and students.

Access to the 40 BU nights per year on the LDT is via proposals submitted twice per year, and evaluation by a BU Time Allocation Committee.



The LDT dome



LDT: Close-Up of Instrument Bay





Link to our LDT Website