LBT is our only large telescope

We also maintain telescopes at MDM Observatory on Kitt Peak (2.4-m Hiltner and 1.3-m McGraw-Hill) at a 25% share, plus a variety of small special purposes telescopes:

Ohio State LBT priorities:

Workhorse instrumentation for imaging and spectroscopy from UV atmospheric cutoff through mid-IR

Some ability to do time-domain projects that require special scheduling

Ohio State strategic plan includes hiring observationally oriented faculty who can utilize LBT capabilities and contribute to instrumentation efforts

Projects on various scales

We run a mix of long-term, high-return projects, plus low-risk and high-risk medium and small programs.

Have resisted highly technically challenging programs until we fully understand telescope performance and operations.

Small number of observers (9 observers on faculty).

Postdocs, graduate students can be PIs.

Logistics and numbers dictate queue scheduling.

Currently have been sharing queue with RC partners

Wide Variety of Research

ND: Projects on every instrument (LBC, MODS, LUCI) with interest in high-resolution (AO) plus long IR (LMIRCAM).

Transient science a challenge given small observing windows

- LBT is prime access to 8m+ telescopes
- Investigators and students utilize the facility for individual faculty science projects and partner collaborative efforts
- UM desires that the facility stabilize and provide robust science opportunities with a core set of instruments
- UM also strongly desires that the facility deliver non-sidereal capabilities to execute science.

- UM has provided, and will continue to provide observers to conduct and participate in the RC partner queue.
- UM has contributed to instrument development projects, including LMIRCam, iLocator, and will look for future opportunities.

LBT is iconic:

As the world's largest telescope (and first ELT) LBT is an important, if not the most important component of the Department's telescope portfolio which includes ARC/APO 3.5-meter, SDSS, NRAO/ALMA proximity, and LBT.

LBT is an “attractant” for new graduate students and faculty.

LBT enables “larger-than-share” opportunities:

As a smaller partner (<3%) Virginia is not in a position to lead a full-scale instrumentation effort or a large-scale (dozens of nights) observational program.

Instead LBT opens instrumentation opportunities of appropriate scale in partnership with larger projects (e.g. LMIRcam within LBTI) and participation through modest time contribution to larger scale observing program (e.g. LBTI LEECH).

- Wide field muli-color imaging (LBC's) for stellar populations/streams
- High spatial resolution (AO and ultimately interferometry) mid-infrared imaging of luminous infrared galaxies (LBTI/LMIRcam) with *ALMA* as comparable spatial-resolution context, combined with MODS/LUCI spectroscopic observations of star formation
- AO/Interferometric resolved mid-infrared imaging and spectroscopy of resolvable planetary satellites, asteroids, and trans-Neptunian objects.
- Spectroscopy of extremely low metalicity low-redshift emission-line dwarf galaxies (MODS/LUCI)
- Planet hunting and characterization via LBTI/LMIRcam and LEECH

Comments on queue

Queue success requires “poor weather” programs on every available instrument

Queue scheduling is like socialism (at an institutional level):

Shared risk: No one loses big, but no one wins big, either.

Motivation for individuals to contribute effort is often somewhat reduced.

Everyone gets somewhat less than they hoped for.