# Call for proposals for the Liverpool Telescope

# Semester 2008B

The Liverpool Telescope is a 2.0 metre fully robotic telescope sited at Observatorio del Roque de Los Muchachos, La Palma, Canary Islands. The Liverpool Telescope Time Allocation Committee is now accepting proposals for PATT time for observations in Semester 2008B (1-Aug-2008 to 31-Jan-2009).

Full details of the telescope, instrumentation and proposal submission are given at:

*http://telescope.livjm.ac.uk/*

## Time available and deadline

*The deadline for submission is 31 March 2008.*

The total available time for PATT users in 2008B excluding pre-allocated time is 227 hours.

## Instrument availability

The instruments available are the Meaburn Spectrometer, RATCam, SupIRCAM, RISE and RINGO.

- The Meaburn Spectrometer is a prototype low dispersion spectrograph. It is an expert user instrument. Potential users should contact the LT Support Astronomer, Chris Moss (ltsupport_astronomer@astro.livjm.ac.uk) directly to discuss the capability of the instrument and feasibility of the observing programme before submitting an observing proposal.
- RATCam is an optical CCD camera with a 4.6 x 4.6 arcmin field of view. The available filers are Sloan u', g', r', i', z', Bessell B and V, and Hα. Observations can also be obtained without filters.
- SupIRCAM is an infrared camera operating at J or H band with a 1.7 x 1.7 arcmin field of view.
- The RINGO polarimeter is an JMU Astrophysics Research Institute internally-funded fast-track instrument. It is an expert user instrument. Potential users should contact the LT Support Astronomer, Chris Moss (ltsupport_astronomer@astro.livjm.ac.uk) directly to discuss the capability of the instrument and feasibility of the observing programme well before submitting an observing proposal.
- RISE is fast-readout camera developed in collaborarion QUB. It has a fixed "V+R" filter (similar to that used in RINGO) and reimaging optics giving a 7 x 7 acrminute field of view. An e2V frame transfer detector is used to obtain a cycle time of less than 1 second. It is an expert user instrument. Potential users should contact the LT Support Astronomer, Chris Moss (ltsupport_astronomer@astro.livjm.ac.uk) directly to discuss the capability of the instrument and feasibility of the observing programme well before submitting an observing proposal.

Information on all these instruments is available at:

*http://telescope.livjm.ac.uk/Info/TelInst/Inst/*

# Proposal process

Applications are submitted in two phases:

## Phase 1 - the science definition phase

Phase 1 proposals are sent to the Telescope Allocation Committee (TAC) outlining the science case for observation and, in particular, why they are suitable for a robotic telescope.

- See http://telescope.livjm.ac.uk/Info/PropInst/ for instructions on how to prepare and submit your Phase 1 proposal.
- *Please note that a new version of the LaTeX style file for PATT submissions has been introduced for semester 2008B*.
- Please note the requirement to specify a "minimum usable fraction" (see below).

## Phase 2 - the observation specification phase

The principal investigators of proposals that were successful in Phase 1 will be sent instructions by the LT technical team on how to complete Phase 2 of the submission process.

Successful proposals are entered into the observing queue with one of three rankings.

## Rank Definition

A. High priority programmes. The TAC would like to see 100% completion of the observations.

B. Medium priority programmes. The TAC would like to see at least the MUF (Minimum Usable Fraction) of observations obtained, provided this does not impact of the completion of priority A programmes.

C. Low priority programmes. These programmes are used to over-subscribe the observing queue so that the telescope is not idle. There is no guarantee that any observations will be obtained. If observations are started for a programme then the scheduling software should aim to obtain at least the MUF of the observations, but not at the expense of 100% completion of priority A or B programmes. There will be approximately 100 hours available for Band C programmes in semester 2008B, spread equally across all observing conditions.

The MUF (minimum usable fraction) was introduced by the PATT TAC to help the LT technical team schedule observations effectively, e.g., to decide whether to finish the observations for one programme or to start a new programme that may not be completed. Proposers are asked to specify the MUF for their programme in the technical case of their phase 1 proposal. For example, the MUF can be used to specify that "any observations would

be usable" (MUF=1%), or "a complete or nearly complete sample is essential to achieve the science goals" (MUF=90%). The TAC may revise the MUF of successful proposals if they feel this is appropriate.

## Telescope performance

The current rms pointing of the LT is 6 arcsec.

The current tracking performance provides seeing-limited images (FWHM < 0.8 arcsec) for exposures up to 1 minute without the auto-guider (open loop) and up to 30 minutes with the auto-guider (closed loop). Individual exposures with the auto-guider are limited to 30 minutes.

## Observing conditions

We welcome applications for all available observing modes, conditions and RA ranges, particularly those that take advantage of the robotic nature of the LT. The PATT time available is spread equally between all observing conditions. Good/Dark time tends to be the most over-subscribed. There is much less competition for observations that can be done in bright and/or spectroscopic conditions.

Dr Pierre Maxted

Chair, PATT Liverpool Telescope Allocation Committee.