

could be taken into account for each night by scaling the moonlit sky surface brightness by this fraction to give a weighted background for the night, but on balance it is considered better to partition telescope time solely in terms of the *worst case* sky surface brightness computed  $\sim 90^\circ$  from the Moon.

The predicted ranges in the zenith  $V$  sky surface brightness at high galactic and ecliptic latitudes, and solar minimum, and at an angular distance from the Moon of  $\sim 90^\circ$ , are 21.2–21.9 mag/arcsec<sup>2</sup> for dark time, and 19.9–21.2 and 18.0–19.9 mag/arcsec<sup>2</sup> respectively for the *moonlit parts* of grey and bright time. For the mean sky, i.e. over all latitudes  $\sim 90^\circ$  from the Moon, these ranges are  $\sim 0.5$  mag/arcsec<sup>2</sup> *brighter* because of the larger contributions of airglow, zodiacal light and starlight.

This definition of dark, grey and bright time will be used in constructing the ING schedules from Semester 2002B onward. The exposure time calculator,

SIGNAL, has been modified to offer an option specifying 'typical' sky surface brightnesses for dark, grey and bright time, corresponding to  $V_{sky}=21.50, 19.75$  and 18.50 mag/arcsec<sup>2</sup> respectively.

A longer version of this article is available as *ING Technical Note No. 127*, available at URL [http://www.ing.iac.es/Astronomy/observing/manuals/man\\_tn.html](http://www.ing.iac.es/Astronomy/observing/manuals/man_tn.html)

## Acknowledgements

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References:

- Benn, C. R. & Ellison, S. L., 1998, *ING Tech. Note*, 115.  
 Krisciunas, K. & Schaefer, B. E., 1991, *PASP*, 103, 1033.

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## Important Dates

*Deadlines for submitting applications*

UK PATT:

**15 March, 15 September**

NL NFRA PC:

**31 March, 30 September**

SP CAT: **1 April, 1 October**

ITP: **30 June**

*Semesters*

Semester A:

**1 February – 31 July**

Semester B:

**1 August – 31 January**

# Telescope Time Awards Semester 2002A

For observing schedules please visit this web page:  
<http://lpss33.ing.iac.es:8080/cgi-bin/schedules.pl>

ITP Programmes on the ING Telescopes

- Doressoundiram (Paris), Multi-color taxonomy of trans-Neptunian objects. **ITP/2002/1**
- Ruiz-Lapuente (Barcelona), Supernova and the physics of supernova explosions. **ITP/2002/4**

William Herschel Telescope

UK PATT

- Axon (Hertfordshire), The Black Hole Mass-Velocity Dispersion Correlation. **W/2002A/38**
- Barcons (IF Cantabria), An XMM-Newton international survey (AXIS-II): unveiling the hard X-ray source populations. **ITP/2001/2 PB**
- Barnes (St Andrews), Starspot tracking on the W Ursae Majoris system BW Dra. **W/2002A/41**
- Benn, (ING), Adaptive-optics imaging of QSO host galaxies. **W/2002A/6**
- Bower (Durham), The Sauron Deep Survey. **W/2002A/50**
- Boyce (Bristol), K-band imaging of gas-rich low surface brightness galaxies found at 21cm. **W/2002A/52**
- Coggins (Nottingham), Mapping Elliptical Galaxy Mass Distributions using Gravitational Redshift. **W/2002A/35**
- Davies (Durham), Mapping Early Type Galaxies along the Hubble Sequence. **W/2002A/21**
- Dhillon (Sheffield), Coordinated optical and X-ray observations of the eclipsing polar HU Aqr. **W/2002A/9**
- Fitzsimmons (Belfast), The Size Distribution and Colours of Short-Period Comets. **W/2002A/67**
- Gledhill (Hertfordshire), AO imaging of post-AGB circumstellar envelopes. **W/2002A/11**
- Gray (Edinburgh), Combined X-ray and weak lensing mass profiles of the brightest cluster lenses. **W/2002A/80**

- Jeffries (Keele), Low mass stellar populations in the most massive OB associations. **W/2002A/72**
- Kleyna (IoA, Cambridge), Dark matter in the UMi dwarf spheroidal. **W/2002A/46**
- Kodama (Tokyo), History of Galaxy Mass Assembly in the Hierarchical Universe at  $z \sim 1$ . **W/2002A/58**
- Marsh (Southampton), Magnetic braking and solar cycles in detached binary stars. **W/2002A/7**
- McMahon (IoA, Cambridge), Constraining the contribution to the UV background from  $z=3$  and  $z=5$  quasars. **W/2002A/78**
- Meikle (Imperial College), Detection and Study of Supernovae in Nuclear Starburst Regions. **W/2001B/34 (Long term)**
- Meikle (Imperial College), Detailed study of the physics of nearby Type Ia Supernovae. **W/2002A/49**
- Merrifield (Nottingham), Determining the Dynamics of Round Elliptical Galaxies. **W/2002A/20**
- Miller (Oxford University), A Survey for wide-separation gravitational lenses from the 2dF QSO Redshift Survey. **W/2002A/33**
- Page (Mullard Space Science Lab/UCL), Optical identification of faint X-ray sources in a deep XMM-Newton/Chandra survey. **W/2002A/43**
- Peroux (IoA, Cambridge), Tracing Galactic Haloes at  $3.0 < z < 4.5$  using CIV Absorption. **W/2002A/14**
- Pettini (IoA, Cambridge), CORALS II: Assessing the Dust Bias in Damped Lyman- $\alpha$  Systems at Intermediate Redshifts. **W/2002A/10**
- Rolfe (Leicester), The Orbital Velocities and Stellar Masses in the Dwarf Nova IY UMa. **W/2002A/28**
- Ryan (Open University), Carbon nucleosynthesis in the first stars. **W/2002A/1**
- Shanks (Durham), A 2dF QSO Lensing Estimate of  $\Omega_m$  via Faint QSO Number Counts. **W/2002A/76**
- Smail (Durham), Testing Photometric Redshifts using Cluster Lenses. **W/2002A/5**
- Smith (Durham), Probing the Formation Epoch of Massive Elliptical Galaxies. **W/2002A/56**
- Steeghs (Southampton), The structure of AM CVn binaries and their discs. **W/2002A/31**
- Tanvir (Hertfordshire), Rapid imaging of GRB error boxes and spectroscopy of GRB-related optical/IR transients. **W/2002A/65**
- Unda Sanzana (Southampton), A new structure on U Gem? **W/2002A/51**