



ISAAC NEWTON GROUP OF TELESCOPES
Roque de Los Muchachos Observatory, La Palma

**ANNOUNCEMENT OF OPPORTUNITY FOR OBSERVING TIME
IN SEMESTER 2016B: 1st August, 2016 – 31st January, 2017**

UPCOMING CHANGES IN INSTRUMENTATION: Substantial changes in the instrumentation offered at both the WHT and INT are on the way (post-2016B), in the run-up to deployment of the new survey-mode instruments WEAVE and HARPS-3. See Section 2 for further information.

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1. Proposal submission and deadlines

Information about applying for time on the 4.2-m William Herschel Telescope (WHT) and the 2.5-m Isaac Newton Telescope (INT) can be found on:

http://www.ing.iac.es/astronomy/observing/INGinfo_home.html

Each observing proposal should be submitted to the time-allocation committee (TAC) of one of the three operating countries: the Netherlands, Spain or the United Kingdom. Proposers who qualify for OPTICON trans-national access time are encouraged to submit their proposals directly to OPTICON. Advice on how to submit proposals, and submission deadlines, are provided by each TAC:

Netherlands (PC) <http://www.nwo.nl/financiering/onze-financieringsinstrumenten/ew/isaac-newton-group-of-telescopes/isaac-newton-group-of-telescopes.html>

Spain (CAT) <http://www.iac.es/cat/pages/cat-nocturno/en/requesting-time.php?lang=EN>

UK (PATT) <http://www.stfc.ac.uk/funding/research-grants/funding-opportunities/applying-for-time-on-stfc-astronomy-facilities/>
PATT form: http://www.ing.iac.es/astronomy/observing/patt/PATT_Appl.html

OPTICON <http://www.astro-opticon.org/fp7-2/tna/>

ITP <http://www.iac.es/eno.php?op1=5&op2=13&lang=en>

Principal Investigators (PIs) employed or studying in a Dutch, Spanish or UK institution at the time of submission should submit their proposal(s) to the Dutch, Spanish or UK TAC respectively. PIs hosted by other countries, and Dutch, Spanish or UK PIs wishing to submit a proposal to a TAC other than that of their host country, should refer to the information provided by the relevant TAC.

For both the WHT and INT (and particularly the INT) applicants are encouraged to submit proposals for large time allocations. The Dutch, Spanish and UK TACs are all willing to consider multi-semester allocations.

Requests for observations which are likely to enhance exploitation of the upcoming surveys with [WEAVE](#) (new 1000-fibre multi-object spectrograph, at the WHT from 2018), e.g. pre-imaging, AF2 pilot spectroscopy, are also particularly welcome.

In addition to the above, there exist two additional channels for obtaining time: OPTICON and ITP (International Time Programme):

The OPTICON scheme fosters pan-European access to the ING telescopes (up to 6 WHT nights, 10 INT nights), under the auspices of the EC-funded Research Infrastructure Programme. OPTICON time is available to eligible astronomers based in EU member states and associated states, and EC funding may be available to cover travel, accommodation and subsistence costs. Applications from new users and young researchers, and astronomers based in countries without similar research facilities, are strongly encouraged. International proposals which meet OPTICON's criteria of eligibility, but which are submitted to and awarded telescope time by the national TACs, do not qualify for OPTICON financial support.

5% of the time on the telescopes is 'international time', available for allocation to international teams requiring substantial amounts of time to carry out major research projects. Each project must benefit from time obtained on more than one La Palma telescope. For details, consult the ITP pages linked above. The annual application deadlines are in February, and the next one is 29th February 2016.

2. Common-user instruments (WHT and INT), and upcoming changes to instrument suite

In semester 2016B begins a series of changes at the WHT and INT, in preparation for the deployment of new survey instruments on both telescopes. Current plans are described in detail on:

<http://www.ing.iac.es/astronomy/instr.html>

and any updates will be publicised as they occur to ensure a smooth transition to the new model of operation. Prospective observers are encouraged to follow the updates so that they can plan ahead.

In particular, observers should be aware that observations with AF2 (or INTEGRAL) will not be possible after the end of 2016B, due to modifications of the GHRIL Nasmyth enclosure to accommodate the WEAVE spectrograph.

For the same reason, 2016B will be the last semester when visiting instruments are hosted in GHRIL. From 2017A, these will move to the other Nasmyth platform (GRACE).

The instruments currently available on the WHT and INT are shown on:

<http://www.ing.iac.es/astronomy/observing/instruments.html>

and are summarised below. Please direct any queries about individual instruments to the relevant ING instrument specialists (contact details on the above link).

WHT:

Instrument

Description

[ISIS](#)

Medium-resolution long-slit spectroscopy, polarimetry. An [image-slicer](#) is available on a shared-risk basis. The slicer delivers a spectroscopic resolution of two pixels, with throughput ~ 2 - 3 times greater than with the long-slit set to project to 2 pixels in 1" seeing (and up to 1.5 times greater in 1.5" seeing).

[ISIS/QUCAMs](#)

Spectroscopy with high time resolution and/or of faint objects (L3 CCDs).

[LIRIS](#)

Near-IR imaging (4-arcmin field) through broad- and narrow-band filters, and long-slit spectroscopy, multi-object (slit masks) spectroscopy, spectropolarimetry and imaging polarimetry.

PIs awarded time in multi-slit mode are strongly encouraged to initiate the design of their slit masks on publication of the telescope schedules. The cost of manufacturing the slit masks for MOS mode (€600 to €900 per mask) must be covered by the home institution of the proposing team. IAC provides mask design, and manages the procurement process. Please contact the IAC LIRIS team (liris@iac.es) to initiate mask manufacture.

[ACAM](#)

High-throughput imaging (8-arcmin field) through broad- and narrow-band filters, and low-resolution long-slit spectroscopy. Observations can be made with ACAM at any time, except when an instrument is mounted at prime focus.

[AF2](#)

Multi-object (150 fibres) medium-resolution spectroscopy over a 40-arcmin field. Recent improvements in the target-acquisition procedure, and a better characterisation of field distortion at WHT prime focus, have significantly increased the accuracy of fibre positioning on targets and, correspondingly, instrument throughput. ING provides a data-reduction pipeline. **AF2 will not be available after the end of 2016B.**

[Prime-focus imager](#) Imaging over a 16-arcmin field, using the two-CCD mosaic (the single 4k * 4k CCD is not offered). This imager will be withdrawn from service once the new Spanish-built [PAUCam](#) imager (see below) has been fully commissioned.

INT:

Instrument

Description

[IDS](#)

Medium- and low-resolution long-slit spectroscopy. IDS is offered with two possible detectors: Red+2 (default detector) and EEV10 (whose use should be justified in the proposal).

[WFC](#)

Imaging over a 33-arcmin field. The WFC is offered with a fixed rotator position angle of 180 degrees. When compelling scientific justification is provided in the observing proposal, other rotator angles (0, 90 or 270 degrees) can be offered for the duration of the run only. Changes to rotator angle during a run are not permitted.

3. Visitor instruments (WHT)

Applicants wishing to submit proposals to use an established visitor instrument on the WHT should in the first instance contact the relevant person listed below:

Instrument

Contact

[GHaFaS](#)

John Beckman, jeb@iac.es

[INTEGRAL](#)

Evencio Mediavilla, emg@iac.es

[PAUCam](#)

Francisco Castander, fjcastander@gmail.com

[PN.S](#)

Magda Arnaboldi, marnabol@eso.org

INTEGRAL will not be available after the end of semester 2016B.

The PAUCam imager (field of view $\sim 1 \text{ deg}^2$) had two successful commissioning runs at the WHT in June and November 2015. The PAUCam team are making the instrument available to the ING community in 2016B at the observers' risk. Commissioning results are being posted at the PAUCam web pages as they become available. The autoguiding functionality will probably be commissioned in 2016A. Observers interested in using PAUCam in 2016B should contact Francisco Castander at the email address above, for the latest advice about any performance issues not addressed in the PAUCam web pages, and also for advice about the likely timing of PAUCam survey runs during that semester. All scheduled observations will be carried out by the PAUCam team.

PIs considering a proposal to deploy a visitor instrument which is new to the WHT should email the ING Director (Marc Balcells, director@ing.iac.es) well in advance of the proposal deadlines stating their intent, and should also submit a Technical Appraisal form. Further information on the protocol to be followed for submitting proposals to deploy new visitor instruments, and a link to the Technical Appraisal form, are available on:

<http://www.ing.iac.es/astronomy/observing/NewVisitorInstruments.html>

Nasmyth visiting instruments will after 2016B be mounted on the GRACE Nasmyth platform (recently vacated by the adaptive-optics suite). The GHRIL Nasmyth platform will house the WEAVE spectrograph.

4. Observer support at the telescope

A summary of the observer support available at the telescope can be found on:

<http://www.ing.iac.es/astronomy/planning/support.html>

Astronomical support will be provided during the first evening, and part of the first night, of each WHT and INT run (apart from runs with established visiting instruments), and will include an introduction to the telescope, instrumentation and data-acquisition systems, and safety issues. The support astronomer (SA) will be on-call at the Residencia throughout the first night. The WHT Observing Support Assistant (OSA) provides all-night, year-round operator and engineering support at the telescope.

Manual changes to the configuration of an instrument during an observing run (e.g. installation of a filter, dichroic or grating) will be accommodated if they were explicitly specified in the observing proposal, and confirmed with the SA well in advance of the run. These changes will be made by ING staff, and must not be made by visiting observers at either the WHT or INT. At the WHT, such changes can also be made during

the night by the OSA (but may incur significant observing overheads). At the INT, such changes can only be made during the day, when appropriately-trained staff can be made available. Requests for configuration changes not specified in the telescope proposal will be handled on a best-efforts basis.

Each PI will be contacted by the SA about one month in advance of observing, to confirm the instrument configuration, discuss the observing plan, etc.

At the INT, it may be possible for some programmes to be observed in service mode, through collaboration with the INT student support astronomers. Any additional costs incurred (residencia charges, etc.) will be borne by the PI. PIs who are interested in such service-mode observing at the INT should contact the INT manager Cecilia Fariña (cf@ing.iac.es).

5. Observer experience

Inexperienced WHT and INT observers must be accompanied by an experienced observer. 'Inexperienced' here means unable, alone, to make efficient (and safe) use of the observing night, whether from general lack of observing experience, or from lack of experience with the specific techniques to be used. This lack of experience will not adequately be compensated by the start-of-run training provided by observatory support staff.

In addition, it is essential that INT observers have considerable end-to-end observing experience with medium-sized telescopes. As there is no observing support assistant at the INT, observers are responsible for all aspects of operation, from opening the dome in the evening, and operating the telescope and instrumentation throughout the night, to parking the telescope and closing the dome at the end of the night or in the event of deteriorating weather conditions.

ING relies on student supervisors, and experienced members of proposing teams, to ensure that less-experienced observers prepare adequately for their observing runs, before travelling to La Palma.

Marc Balcells, Director ING (director@ing.iac.es)
Chris Benn, Head of Astronomy (crb@ing.iac.es)
15th February 2016