



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

**ANNOUNCEMENT OF OPPORTUNITY FOR OBSERVING TIME  
IN SEMESTER 2016A: 1<sup>st</sup> February – 31<sup>st</sup> July, 2016**

**Contents:**

1. Proposal submission and deadlines
2. Common-user instruments (WHT and INT)
3. Visitor instruments (WHT)
4. Observer support at the telescope
5. Observer experience

**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](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/1506>  
PATT form: [http://www.ing.iac.es/astronomy/observing/patt/PATT\\_Appl.html](http://www.ing.iac.es/astronomy/observing/patt/PATT_Appl.html)

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

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, 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.

The OPTICON scheme fosters pan-European access to the ING telescopes, 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.

## 2. Common-user instruments (WHT and INT)

The instruments 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).

Note that as part of ongoing rationalisation of the WHT's instrument suite, and following consultation with ING's observing communities (see e.g. a [recent poll](#)), the adaptive-optics instruments (NAOMI/INGRID and NAOMI/OASIS) are no longer offered.

### WHT:

Instrument	Description
<a href="#">ISIS</a>	Medium-resolution long-slit spectroscopy, polarimetry. An <a href="#">image-slicer</a> has recently been commissioned, and 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).
<a href="#">ISIS/QUCAMs</a>	Spectroscopy with high time resolution and/or of faint objects (L3 CCDs).
<a href="#">LIRIS</a>	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 ( <a href="mailto:liris@iac.es">liris@iac.es</a> ) to initiate mask manufacture.
<a href="#">ACAM</a>	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.
<a href="#">AF2</a>	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. In addition, a 4k*4k deep-depletion low-fringing CCD is now available as the default detector, and ING provides a data-reduction pipeline.
<a href="#">Prime-focus imager</a>	Imaging over a 16-arcmin field, using the two-CCD mosaic (the single 4k * 4k CCD is not offered). It's likely that this imager will be withdrawn from service once the new Spanish-built <a href="#">PAUCam</a> imager (see below) has been fully commissioned.

### INT:

Instrument	Description
<a href="#">IDS</a>	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).
<a href="#">WFC</a>	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
<a href="#">GHaFaS</a>	John Beckman, <a href="mailto:jeb@iac.es">jeb@iac.es</a>

[INTEGRAL](#) Evencio Mediavilla, emg@iac.es  
[PAUCam](#) Francisco Castander, fjcastander@gmail.com  
[PN.S](#) Magda Arnaboldi, marnabol@eso.org

The PAUCam imager (field of view  $\sim 1 \text{ deg}^2$ ) had a successful commissioning run at the WHT in June 2015. The PAUCam team are making the instrument available to the ING community in 2016A at the observers' risk. Commissioning results are being posted at the PAUCam web pages as they become available. The autoguiding functionality will be commissioned in November 2015 and may be available in 2016A. Observers interested in using PAUCam in 2016A 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](mailto: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>

#### 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.

#### 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](mailto:director@ing.iac.es))  
Chris Benn, Head of Astronomy ([crb@ing.iac.es](mailto:crb@ing.iac.es))  
17th August 2015