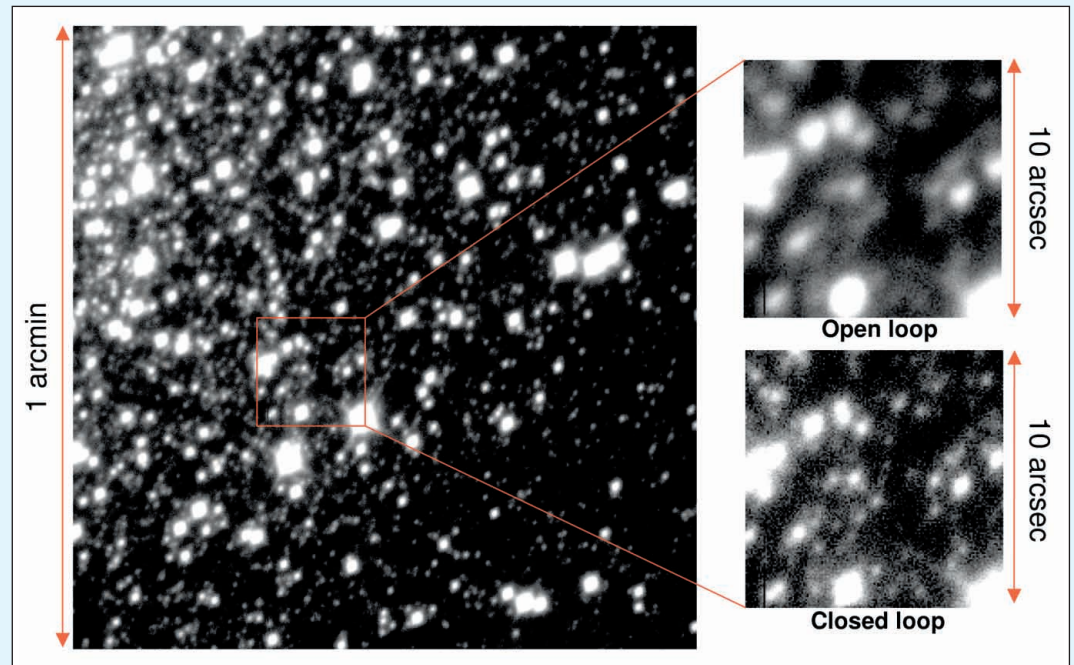


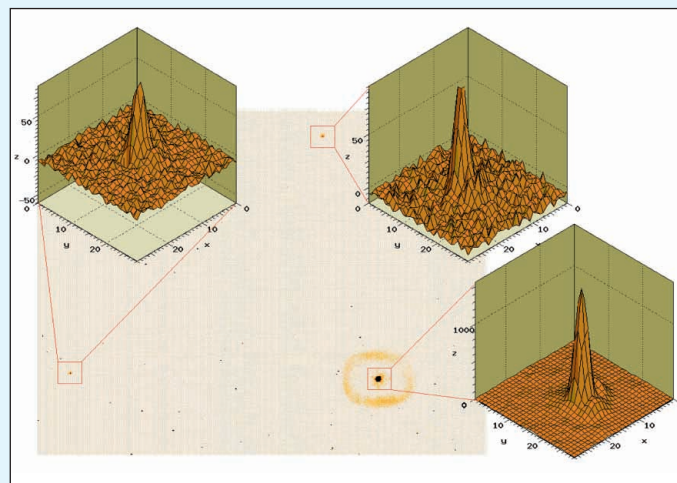


# THE ISAAC NEWTON GROUP OF TELESCOPES

## First Results from NAOMI in the Optical



This H-alpha image (top) of globular cluster M13 was taken with the WHT's adaptive-optics system NAOMI. The FWHM has been improved from 0.8 arcsec (natural seeing) to 0.4 arcsec, allowing many faint stars to be resolved. The image was taken during September 2001 tests of NAOMI's performance at optical wavelengths, and provides a realistic outlook of the AO potential at the William Herschel Telescope. Given that the median natural seeing on La Palma is about 0.7 arcsec, an image quality of  $\sim 0.3$  arcsec in the R and I bands should be achieved regularly.



AO capability at optical wavelengths is not common place at other observatories. In the infrared, where diffraction limited performance is more readily obtained, NAOMI has already proven its capability. The image to the left shows the K-band diffraction limited (0.13 arcsec FWHM) central star of the planetary nebula BD+30 3639. The nebula has a radius of  $\sim 2.5$  arcsec on this image. Interestingly, field stars as far away as 30 arcsec from the central star still enjoy very good AO correction, indicating that on La Palma good AO correction can be achieved over moderately wide fields. (See also article by Benn et al. on page 19).

## Message from the Director

Dear Reader,

By the time this ING Newsletter reaches your screen, library or desk, a new fibre module for the Autofib fibre instrument will have been fully commissioned. Although at the time of writing there is still much work to be done, the new unit has been put through its paces

on the telescope. And very successfully so! This project is one of the main instrumentation development activities that are fully carried out by ING staff on La Palma. But most importantly, this project will provide significant improvements to the capability of multi-object fibre spectroscopy at the WHT. The interest in this field of observational astronomy is reflected in the large number of high quality applications that have been received.

## THE ISAAC NEWTON GROUP OF TELESCOPES

The Isaac Newton Group of Telescopes (ING) consists of the 4.2 m William Herschel Telescope (WHT), the 2.5 m Isaac Newton Telescope (INT) and the 1.0 m Jacobus Kapteyn Telescope (JKT), and is located 2,350 m above sea level at the Roque de Los Muchachos Observatory (ORM) on the island of La Palma, Canary Islands, Spain. The WHT is the largest telescope of its kind in Western Europe.

The construction, operation, and development of the ING Telescopes is the result of a collaboration between the United Kingdom and the Netherlands. The site is provided by Spain, and in return Spanish astronomers receive 20 per cent of the observing time on the telescopes. The operation of the site is overseen by an International Scientific Committee, or Comité Científico Internacional (CCI).

A further 75 per cent of the observing time is shared by the United Kingdom and the Netherlands. On the JKT the international collaboration embraces astronomers from Ireland. The remaining 5 per cent is reserved for large scientific projects to promote international collaboration between institutions of the CCI member countries.

The ING operates the telescopes on behalf of the Particle Physics and Astronomy Research Council (PPARC) of the United Kingdom and the Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO) of the Netherlands. The Roque de Los Muchachos Observatory, which is the principal European northern hemisphere observatory, is operated by the Instituto de Astrofísica de Canarias (IAC).



(Continued from front cover)

As multi-object fibre spectroscopy is seen as one of the key roles for the WHT in future years it is heartening to see that there is so much interest in this new fibre module. You will read more on the new fibre module in the pages that follow.

An important event occurred in February of this year when an international and independent group of four eminent scientists conducted a review of the ING. This Visiting Group, chaired by Prof Kenneth Freeman, was asked by the ING Board to review progress made on the recommendations from the review that

was carried out three years earlier, and to review the operations and development plans and future prospects of the ING. The outcome of this review has been very supportive of what the ING has accomplished in recent years and what our strategic plans are for the future. This review has already had an important impact and will serve as a reference point for several years to come.

For one thing, the international review helped ING focus on the options for further international collaboration, and on the more important role that the IAC could play in the operation and development of the observatory. This has led to an investigation on how collaborations may develop further. At the moment talks are ongoing for collaborations at various levels between ING and the IAC, the Italian National Telescope Galileo, Calar Alto Observatory, and the Canada-France-Hawaii Telescope. These practical initiatives are all aimed at providing better, and more cost-effective service for the community of users in the longer term.

René G. M. Rutten

## The ING Newsletter

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The ING Newsletter is published twice a year in March and September. If you wish to submit a contribution, please contact Javier Méndez ([jma@ing.iac.es](mailto:jma@ing.iac.es)). Submission deadlines are 15 July and 15 January.

## The ING Board

The ING Board oversees the operation, maintenance and development of the Isaac Newton Group of Telescopes, and fosters collaboration between the international partners. It approves annual budgets and determines the arrangements for the allocation of observing time on the telescopes. ING Board members are:

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Dr. T. Marsh – Southampton  
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