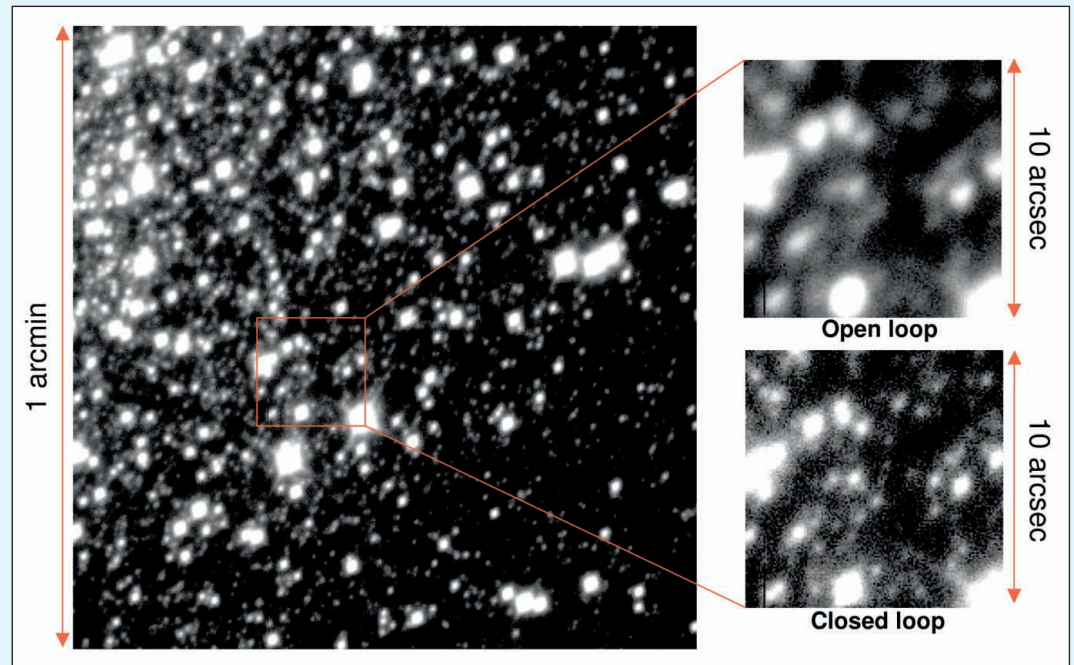


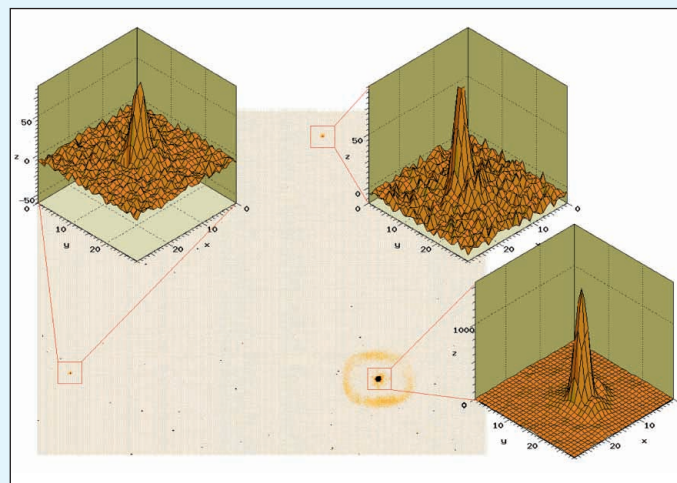


THE ISAAC NEWTON GROUP OF TELESCOPES

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 ~ 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 ~ 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.