Seminars and Talks given at ING

Visiting observers are politely invited to give a seminar at ING. Talks usually take place in the sea level office in the afternoon and last for about 30 minutes plus time for questions afterwards. Astronomers from ING and other institutions on site are invited to assist. Please contact Johan Knapen (knapen@ing.iac.es) for more details. These were the seminars and talks given in the last six months:

13 September
Quasar Host Galaxies, S Sánchez (ING)

16 September
Gemini Introductory Talk, I Hook (UK Gemini Support Group)

22 September
Present and Future Laser Guide Star Developments for the WHT, C Dainty (Imperial College London)

27 October
Forever Blowing Bubbles... White Dwarfs, Supernovae and Local Interstellar Space, M Barstow (University of Leicester)

4 November
Triffid Optical Observations of Isolated Neutron Stars, Andy Shearer (University College Galway)

22 November
The Background and Status of the SALT Project, David A H Buckley (South African Astronomical Observatory)

10 February
The Formation of Multiple Shells in Planetary Nebulae, R Corradi (ING)

15 February
Mid and FIR Spectral Energy Distribution of Two Active Galaxies: NGC 6090 and NGC 7582, J Acosta (Instituto de Astrofísica de Canarias)

21 February
The Stellar Content of Elliptical and Spiral Galaxies from Near-Infrared Spectroscopy, P James (Liverpool John Moores University)

28 February
WHT-Integral Field Spectroscopy combined with HST-imaging of Central Regions of Galaxies, S Arribas (Instituto de Astrofísica de Canarias)

A Big Effort (and a Big Crane) Solves a Big Problem

Kevin Dee (Head of Mechanical Engineering, ING) and Gordon Talbot (Head of Engineering, ING)

During the night of 20 February 1999 there was a major failure of the top dome shutter mechanism on the Isaac Newton Telescope, which potentially could have either left the telescope exposed to the elements (in winter!) or rendered the telescope unusable (shutter stuck closed) for a considerable period. The first priority was to make sure the telescope would be left in a safe condition, but this did not prevent that night's observing taking place.

The following day, a Sunday, a full team went to the telescope and effected a temporary repair, using spares already held. Again no observing time was lost.

It was decided after inspection that a longer term solution was needed. What was found was that the mechanism over the last 15 years 'hard labour' had bored through the casing, so at a cost of 25,000 pounds it was decided to replace all units and include a set of strategic spares for the future. After research the units were sourced from the original supplier.

While they were being delivered two nights/three days (24–26 August) were allocated in semester 2000B to carry out the work, with as much preparation as possible done off the telescope.

To carry out the work the largest crane on La Palma was hired (see photographs) to lift the half-tonne units.

A major concern was naturally the safety of those carrying out the work, due to the exposed location on top of a concave dome 30 metres above the ground. After a risk analysis a safe system of working was introduced, involving first of all physically securing the several tonne dome shutter, to prevent it descending, while the mechanisms and cables were removed. Staff working outside the handrailed areas were secured by 'bosuns chairs' safety harnesses.

After long hours the team from the Mechanical and Site Services groups completed the work within the allocated period and handed the telescope back for observing on the third night.

It is to everyone involved's credit that from the problem occurring in February until its permanent repair six months later, no observing time was lost — what could have been a long outage was averted.

So the INT dome shutter is now ready for the next fifteen or more years service. ¤

Kevin Dee (kmd@ing.iac.es)