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STUDENT TRAINING AT THE TELESCOPE IN THE 10-M ERA

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The ING studentship program has, for more than 10 years now, offered European astronomy students the opportunity to train as an observer on a medium-sized ground-based optical telescope. This is particularly important in the era of very large telescopes and their queue scheduled observing. This limits direct access by young astronomers, and is giving rise to a generation of astronomers with much reduced experience of observing.

The 2.5-m Isaac Newton Telescope (INT) is operated at the Observatorio del Roque de los Muchachos on La Palma (Canary Islands) by the Isaac Newton Group of Telescopes (ING). The INT is used for astrophysical research by a large community of astronomers worldwide. It currently houses two highly competitive instruments: the Wide Field Camera (WFC) which offers one of the largest available broad- and narrow-band filter sets for wide field imaging, and the Intermediate Dispersion Spectrograph (IDS), a very versatile long-slit spectrograph.

Its imaging and spectroscopic capabilities make the INT a unique hands-on training facility for students just starting their careers in astronomy and astrophysics. The INT offers visitor-mode observations only, so a high degree of interaction with visiting astronomers working in a wide variety of topics is guaranteed.

The ING studentship program offers to 4 students (PhD/Master) from any European country a 1-year stay at the ING learning different aspects of the operations of an observatory.

During their stay, the student main duties consist of managing and supporting all the INT observations using the WFC and the IDS. They are also involved in ING projects related to any instrumental, optical, or software development, improvement and/or characterization. Besides, they have ∼60% of time for doing research.

Our program allows them to get in contact with the instrumental and engineering side of an observatory. They are trained on how to operate the telescope and fix technical problems. They learn how to setup the instruments for the observers (mounting filters, gratings, focusing the spectrograph, quality control tests, etc.; Figure 1).

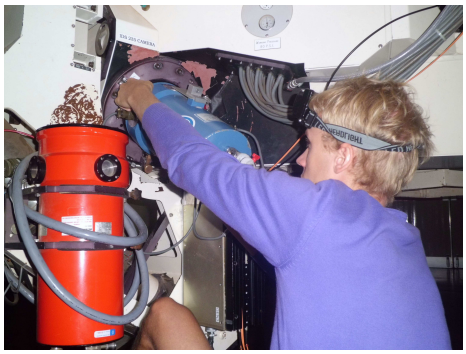

Fig. 1. A student doing the IDS spectrograph setup.

Besides the technical knowledge of the telescope and the instrumentation, they learn and deal with many observing techniques as a result of carrying out different kinds of observing programs and discretionary tasks.

They are also in contact with the visiting astronomers performing different science cases. This provides the students with a wider perspective of the astrophysical research. In this enriching environment they have the opportunity to pursue their own research.

Since 2002 ING has hosted 42 students from different nationalities and institutions, who have been formed as support astronomers. Most of the students come from UK (64%), mainly from Sheffield, Hertfordshire, Belfast and Manchester universities. Spain is second with the 17% of the students, mainly coming from IAC.

The ING has also a training agreement with the Iranian National Observatory (INO). Astronomers at the INO are planning the construction of a 3.4-m telescope in Iran. First light is expected ∼2015. To provide the Iranian astronomy community with a broader base of observational experience, Iranian student astronomers visit ING for extended periods training up as INT support astronomers and helping to carry out observations for visiting Iranian teams. We have hosted three Iranian so far since 2011.

REFERENCES

`http://www.ing.iac.es/astronomy/science/studentship.html`

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