School Pupils Join Oxford Astrophysics Team for Two Nights on the Isaac Newton Telescope

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Driving up the winding road from Santa Cruz and sighting the tiny white domes on the Roque after a year’s break (a pilot visit was conducted last year) was as exciting as the first time view for the 3 school pupils from Marlborough College in Wiltshire. The two staff (both astronomy teachers) and the pupils (all astronomers aged 16, 17 and 18) were booked into the Residencia for two nights in April as part of a week’s expedition to the island. Through the organisation of René Rutten (ING) and Roger Davies (Oxford University) we were able to join a research team from Oxford Astrophysics led by Matt Jarvis on the INT.

The arrangements on the Roque were superb thanks to Javier Méndez and we booked into our own apartment before visits to WHT and INT. After tours and supper we met up with the research team. Weather was not perfect as there was high cloud around, luckily this cleared and we watched a fine sunset from the INT balcony as other surrounding telescopes opened up. Using the dark Moon time, Matt and his team were searching for Lyman-α sources at redshift 3 in the Lockman hole, a dark area of sky between the ‘pointers’ in Ursa Major away from the Galactic Plane. The pupils were able to follow first the opening up of the telescope and priming with liquid nitrogen and then the imaging processing of flat-fielding and then to see the data acquisition using 10 to 30 minute exposures through narrow band Hα and Hβ filters and wide-band Sloan g’ and r’ filters and subsequent analysis using software expressly designed to weed out possible targets, which had to be done immediately given time allocation on the WHT over the next couple of days to follow up with spectra of suspected targets.

Cloud around 3 am forced an early end and a tentative drive with low lights back to the Residencia. Visits had also been arranged by Javier Méndez to Grantecan, MAGIC and the Liverpool Telescope. The Swedish Solar telescope also kindly allowed a tour, for which I am most grateful. The visit to Grantecan’s new site, viewing the huge scale of the construction put the plans for a 50m telescope (let alone a 100m mirror) into perspective. MAGIC was just that, both architecturally beautiful and inspiring for its size and manoeuvrability. One of the pupils on return has already made MAGIC the focus for his final year physics project. A second night on the INT was even more successful and though tiredness forced a couple of early departures, the two older pupils remained until cloud stopped the observing run at 5.30am.

For school pupils to visit the Roque was amazing in itself, but to have 2 nights on the INT with researchers, seeing first hand an observing run was a unique experience. We headed down to sea level tired but very grateful to Javier Méndez for his organisation and to René Rutten for the initial invitation. We very much hope to return next year.

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