

CAUP at ING

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Centro de Astrofísica da Universidade do Porto (CAUP), Portugal, is a scientific private association of the University recognised by the government as an institution of public utility. It started its activities in October 1990. Its objectives include the promotion and support of Astronomy through research, education at undergraduate and graduate levels, as well as the popularisation of Astronomy.

In 1997 the University of Porto, PPARC and NWO signed a Cooperative Agreement concerning the participation in the ING. Within the terms of this agreement signed in Porto, the researchers of CAUP have the right to use the JKT during 28 nights per year. In addition, they have access to the other telescopes, within the ING, under the same conditions of scientific competition as the astronomers of the United Kingdom and the Netherlands. As a reciprocal part of the agreement, CAUP maintains one resident astronomer at La Palma, integrated within the ING team. The possibility of CAUP's participation in the programmes of instrumental development associated with the ING telescopes is also provided for.

The agreement was implemented in February 1998. Since then, three astronomers associated with CAUP have worked at La Palma. The regular replacement of CAUP's astronomer

brings an added value component for CAUP, namely the training of the astronomers in the management and operation of telescopes and their scientific instrumentation. Therefore this is an important complement to other facilities available to the astronomers associated with CAUP. Namely, the access to ESO facilities under the agreement of cooperation between Portugal and ESO, signed in 1990.

La Palma – A Personal Experience

During most of 1999 I was based in La Palma, serving as CAUP's support astronomer at ING. My task consisted of providing support on all three telescopes and various instruments, namely the JAG-CCD camera on the JKT, the WFC and IDS on the INT and UES, ISIS and Auxiliary Port imaging on the WHT. I replaced my colleague Antonio Pedrosa upon his return to Porto and I have recently been replaced by Paulo Garcia, the current CAUP astronomer in La Palma. To smooth the handover of CAUP astronomers an overlap of approximately two weeks is granted for two consecutive astronomers.

Having only used infrared instrumentation prior to my arrival at ING, becoming a support astronomer in an optical observatory meant that a very steep learning curve had to be followed. Fiddling with filters, gratings, dichroics and so on and so forth for every run, is certainly something one does not do with cooled instrumentation used for infrared observations. The help of other ING astronomers, and engineers, to whom I take this opportunity to publicly thank, made those initial times a lot easier although not less stressful. With practice, more in depth knowledge of the various

systems and instruments was achieved, leading to a better service to the observatory and visiting astronomers. As a final result, I believe I am now a proficient optical, as well as infrared astronomer. Although I should leave those at ING under whose supervision I worked, as well as those whom I supported, and the future, to be the judges.

Another important point of my presence at ING was having had the opportunity to meet many people from different backgrounds. From astronomers working in various areas of astronomy, to engineers taking care of observatory equipment or bringing new instrumentation to commission. It was a pleasure to meet them all and be able to discuss many aspects of their work.

For our institution, having wider access to telescope time is, obviously, one of the goals of the PPARC-CAUP agreement. Since the start of semester 98A, when the agreement became effective, observations with ING instrumentation were done for a number of projects lead by CAUP astronomers. As examples, using JKT's JAG-CCD, a study of oscillations in roAp and δ Scuti stars; with UES and IDS, high resolution spectra of T Tauri stars were obtained in order to learn more about the properties of their strong emission lines; with IDS, low spectral resolution data was taken, again of a sample of T Tauri stars, this time to investigate their excess continuum emission. These observing programmes have been developed within CAUP's Stellar Astrophysics group, which goal is a better understanding of the formation, structure and evolution of low-mass stars.

Beyond having access to telescope time, cooperation proposals have already been advanced regarding CAUP's participation in programmes of instrumental development associated with ING telescopes. Yet, the path is open to many other possibilities in the sharing of new cooperative adventures in this field. ☒



A view of the Centro de Astrofísica da Universidade do Porto (CAUP).