

30 Years of Italian Participation to ESO

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On 24 May 1982 Italy joined ESO, becoming the eighth Member State. In the past 30 years the participation of Italy in all of ESO's endeavours has been substantial in all respects: people; fundamental industrial contributions in the construction of telescopes and infrastructures; collaboration of institutes in the development of instrument components; and science programmes. The aim of the symposium was to review critically these past achievements and discuss Italian participation in future ESO projects.

After a welcome address by the ESO Director General, Tim de Zeeuw, the programme started with a historical review by Giancarlo Setti, which illustrated the reasons why Italy did not join at the time of ESO's foundation in 1962, and described the key players, scientists as well as politicians, and the favourable circumstances that contributed to Italy becoming a Member State 20 years later. The importance of access to ESO facilities for the Italian astronomical community was stressed by Monica Tosi, as well as the significant success rate of Large Programme proposals with Italian principal investigators (PIs). The rest of the first morning was dedicated to the contribution of Italian industry to ESO projects. Massimo Tarenghi described the contributions connected with the New Technology Telescope (NTT) and the Very Large Telescope (VLT), while Stefano Stanghellini covered the involvement in the European Atacama Large Millimeter/submillimeter Array (ALMA) antenna design and construction.

In the afternoon session there were invited talks on some highlights of extragalactic scientific results obtained by Italian astronomers using ESO facilities (presented by Elena Pian, Adriano Fontana, Laura Pentericci and Giovanni Cresci), proceeded by a review talk from Alvio Renzini on high impact scientific papers led by Italian astronomers. The access to ESO observing facilities has

been highly beneficial for the scientific community in Italy and has resulted in a large number of outstanding scientific results and publications: 24 out of the 100 most-cited papers from the Paranal Observatory, and 23 out of the 100 most-cited papers from the La Silla Observatory have an Italian astronomer as first author. The first day included also a one-hour discussion forum where representatives of different ESO directorates (Martino Romaniello, Sandro D'Odorico and Bruno Leibundgut) answered questions related to operations, instrumentation and ESO policies.

The second day was opened by a review talk by Sandro D'Odorico on the Italian contribution to ESO instrumentation. The review showed how there has been an increasing involvement of Italian institutes in the past 30 years: from the first contributions to La Silla instrumentation (e.g., SUSI2 and WFI), to the involvement in several first generation (UVES, VIMOS, FLAMES, FINITO and AMBER) and second generation (X-shooter, SPHERE, ESPRESSO) VLT instruments. This positive trend continued in recent years with a strong participation from Italian institutes in E-ELT instrument studies. An important Italian contribution was also in the field of instrument control software, mostly led by the Astronomical Observatory of Trieste, and Paolo Santin gave a review talk on this longstanding and fruitful collaboration with ESO.

One of the aims of the meeting was to discuss the involvement of the Italian astronomical community in future ESO projects. In the framework of the E-ELT there were four talks on instrument studies with significant contributions from Italian institutes: CODEX (Stefano Cristiani), SIMPLE (Roberto Maiolino), MAORY (Paolo Ciliegi) and QuantEYE (Roberto Mignani). The afternoon session of the second day started with a review talk by Giuseppe Bono quantifying the impact of ESO facilities on Italian astronomical research. With a particular focus on the field of stellar astrophysics, it was recognised that access to VLT instruments has had a tremendous impact on the scientific output of the Italian astronomical community. An overview of the VST project was given by Paolo Vettolani and first scientific results based on Guar-



anteed Observing Time (GTO) presented in two contributed talks (Nicola Rosario Napolitano and Enrichetta Iodice). Paolo Vettolani, INAF Scientific Director, illustrated also the plan for the involvement of INAF in future ESO projects. Finally, the last session of the meeting started with a review talk by Leonardo Testi on ALMA science, followed by several contributed talks highlighting important scientific results obtained with ESO facilities in the field of metal-poor stars (Elisabetta Caffau), globular clusters (Raffaele Gratton) and star formation (Matteo Correnti, Fabrizio Massi, Carlo Felice Manara).

The proceedings of the meeting will be published in the online version¹ of *Supplements of the Memorie della Società Astronomica Italiana* and the presentations are available on the symposium webpage².

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Links

¹ Online proceedings to be published: <http://sait.oats.inaf.it/Supplementi.htm>

² Symposium webpage: <http://www.eso.org/sci-meetings/2012/ewass2012.html>