The 8th Torino Workshop on Nucleosynthesis in AGB Stars

Granada, February 6-10, 2006

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FOREWORD

The eighth Torino Workshop on Nucleosynthesis in AGB Stars has recently been held in the historic city of Granada, Spain. The main venue for the workshop was the university residence "Carmen de la Victoria", situated in a privileged position overlooking the world famous Alhambra Palace. Participants were able to enjoy the peace and tranquillity of the Arabic gardens which surround the residence and enjoy strolls around the Albayzin and Sacromonte neighbourhoods, both declared world heritage sites by UNESCO in 1994.

On this occasion the workshop was dedicated to the Andalusi (name of the original inhabitants of Al-Andalus) astronomer Azarquiel (1029-1100) or to give him his full Arabic name, "Abu Ishaq Ibrahim ben Yahia Al Tagibi Al Nakash". We learnt from Mounib El Eid that Azarquiel was a smart astronomer in the modern sense. He built his own instrumentation (Azarquiel's plate) to study the motion and position of planets and stars and he was also interested in the movement of the Sun. How far did Azarquiel think beyond the geocentric model is well worth studying. As a consequence of this, an excellent idea emerged from this workshop: the creation of the "Azarquiel School of Astronomy" in Granada with the aim of teaching young Arabs modern astronomy and putting them in contact with other students in the world of astronomy. In fact, the Torino Workshops have always been held with the intention of promoting the contact between young students and the expertise of scholars in the field of AGB stars. We think we again succeeded in this goal.

In the talks and warm discussions which were held during the course of the meeting it was clear once again the existing close interconnection between different fields such as spectroscopic analysis, stellar modelling, stellar grains, nuclear astrophysics etc in the study of the nucleosynthesis in AGB stars, and how the interplay between all of them can help us to understand the structure and evolution of these wonderful stars and their role in the chemical evolution of the Universe. Among many, we saw the first high resolution near-infrared spectra of AGB stars taken on the VLT and Gemini telescopes using ISAAC or Phoenix spectrographs, it was evident the importance of the infrared flux for the determination of the AGB stars luminosity, the existence of some s-element enhanced "Pb-deficient" metal-poor stars which are difficult to explain even considering a spread in the amount of ^{13}C which is burnt, the advances in the stellar modelling of AGB stars, and the final outcome of the super-AGB stars etc.

Finally, the editors would like to thank to the sponsors of the meeting. It is through their generosity that the local expenses of all the student participants and social activities during the meeting could be covered. We would also like to specially thank the staff of residences "Corrala de Santiago" and "Carmen de la Victoria" for all their help and hard work.

Carlos Abia and Inmaculada Domínguez, 1st May 2006