The 7th Torino Workshop on Nucleosynthesis in AGB Stars

Cambridge, August 2-6, 2004

Scientific Organizing Committee

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Maria Lugaro (Institute of Astronomy, Cambridge, UK)
John Lattanzio (Monash, Australia)
Roberto Gallino (Torino, Italy)
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Local Organizing Committee

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Sponsorship

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Dipartimento di Fisica Generale dell'Universita' di Torino , under the Italian MURST-FIRB project "The origin of heavy elements beyond Fe"

FOREWORD

This is the seventh Torino Workshop since their inception in 1995 and the first time that England's green and pleasant land has played host to it. The main site for the workshop was Churchill College where participants ate, drank and recuperated as well as met for the morning sessions. Afternoon sessions, designed to appeal to a wider audience, took place at the IoA.

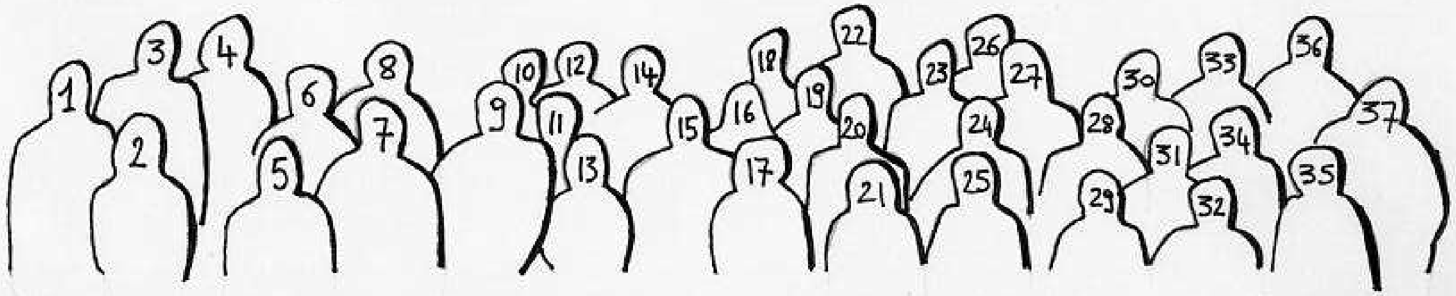
The Torino Workshops have always been held with the intention of promoting discussion and collaboration amongst the AGB community and this meeting was no exception. There was a great range of experience represented, from those who are well-established in the scientific community to those just embarking on their careers. For the first time a session was devoted to the issue of binary systems, with contributions from both the theoretical and observational viewpoints.

On the subject of detailed evolution models, work was presented concerning possible improvements to the treatment of convection. Details of making a convective model consistent with chemistry were presented and it was shown that such a model might be necessary on the AGB. An alternative to the venerable mixing length theory was also discussed. Results from nearly all the major evolution codes were presented often by new blood in the field. A major question that needs to be addressed is: why do different codes produce such different results for the same star? The general consensus of the meeting was that a serious collaborative effort is needed to address this important issue.

From the observational point of view, recent results and new approaches were presented in relation to the spectroscopic analysis of the composition of AGB and post-AGB stars, extragalactic AGB stars, and very metal-poor carbon-rich stars. Also it was shown that the contribution of detailed observational analysis will help to tackle the still largely unsolved problem of modelling the mass loss on the AGB phase. There was also much discussion centred around information that could be obtained from presolar grains. These grains offer a wonderful opportunity for us to be able to understand AGB stars, giving us the chance to constrain the physical parameters of our models.

Finally, the editors would like to offer their thanks to the sponsors of the meeting. It is through their generousity that the local expenses of all the student participants could be covered and ensured the Workshop could be so well attended.

Richard J. Stancliffe, Maria A. Lugaro and Christopher A. Tout, 13$^{\text{th}}$ October 2004



1. Rob G. Izzard
2. Carolina Ödman
3. Onno R. Pols
4. Oscar Straniero
5. Claudio Ugalde
6. Axel Bonacic
7. Roald Guandalini
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10. Marco Pignatari
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25. Maria Lugaro
26. Simon W. Campbell
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28. Thibaut Decressin
29. Lisa Elliott
30. Alexander Verchovsky
31. Richard Stancliffe
32. Elisabeth Wylie
33. Peter Cottrell
34. Carolyn Doherty
35. Stelios Tsangarides
37. John C. Lattanzio

(36. Fred Hoyle, statue)