

PREFACE

The original ideas for this symposium were generated through discussions amongst several members of the Scientific Organising Committee attending IAU Symposium No. 99 (Wolf-Rayet Stars: Observations, Physics and Evolution) held in Mexico in 1981, and subsequently at IAU Symposium No. 105 (Observational tests of stellar evolutionary theory) at Geneva in 1983. It was recognised that with the advent of powerful new observing facilities, particularly with sensitive imaging and spectroscopic detectors on large telescopes, the study of luminous stars was being rapidly extended to objects beyond our own galaxy. Great advances were being made in such diverse, yet possibly related, phenomena as the exciting objects of giant HII regions (e.g. R136a), Eta Carina-like objects, Hubble-Sandage variables, as well as the most luminous 'normal' stars. Considerable progress was being made in advancing knowledge of the numbers and distributions of the most luminous objects in our own and neighbouring galaxies (spirals and irregulars) and exciting results emerging on star formation and the initial mass function of the upper end of the main-sequence in other galaxies. It was thus considered timely to arrange a symposium to bring together the 'stellar' observers and theoreticians to discuss recent progress and outstanding problems in the field. The overall aim of this symposium was to consider the properties and role of the luminous stars, stellar complexes and associations in the evolution of galaxies; to discuss objects found not only in the Galaxy but also in the Magellanic Clouds, the Local Group and beyond.

The organisation of the meeting revolved around invited review talks, in eight sessions, reflecting the broad theme of the symposium and embracing a wide range of interrelated topics: main-sequence and supergiant stars; luminous blue variables and other stars with emission lines; massive stars evolution; large stellar complexes in galaxies; and the integrated luminous stellar content of galaxies. Advances in these fields on both observational and theoretical fronts were presented. In addition, many contributions were presented in the form of poster papers, highlighting exciting new results, and each day finished with a substantial and lively discussion session of the poster papers reflecting the theme of the day's review sessions.

An important aspect of all symposia are the discussions which follow the review papers and, of particular importance to the format of this symposium, of the poster discussion sessions. The editors have tried to faithfully record the content of these discussions in the proceedings. In the case of the reviews, participants were asked to

record their questions and comments on paper, and the collecting and collating of these discussion sheets were capably handled at the meeting by several assistants to the Local Organising Committee, and their help is greatly appreciated. The poster discussions sessions were recorded on tape and these have been transcribed by the editors for inclusion in the proceedings. At the Vrije Universiteit Brussels the preparation and typing of the discussions was carried out by Rita Cardon whose hard work and assistance is greatly appreciated. The International Astronomical Union provided generous financial assistance to the Scientific Organising Committee, and these funds were used to enable several participants to attend the meeting. The Local Organising Committee received generous financial assistance from the Greek Ministry of Science and Culture which greatly facilitated the smooth running of the symposium and general local organisational matters. The Scientific Organising Committee is greatly indebted to Drs Paul Laskarides, Mary and Evangelos Kontizas and other members of the LOC whose untiring efforts both prior to and at the meeting resulted in a smooth and efficient local organisation. This was greatly appreciated by all participants and their guests. The location of the symposium at the Hotel 'Cosmos' (deemed an appropriate venue for an astronomical meeting!) in the small fishing village of Porto Heli in the southern Peloponese, proved an ideal setting for informal, yet highly constructive scientific interaction between the participants.

The Editors.