

PREFACE

This volume presents the “Reports on Astronomy” of the International Astronomical Union (IAU) for the triennium 1 July 1996 through 30 June 1999. The “Reports on Astronomy” are unique in presenting a complete, authoritative, yet compact review of scientific progress in all branches of astronomy. Their intended readership is not only astronomers seeking information on developments outside their own field, but also scientists from other disciplines seeking a concise overview of recent developments in astronomy. These scientific Reports are published just before each General Assembly as Volume A of the IAU Transactions (here Vol. XXIV), while Transactions B contain the Proceedings of the General Assembly and thus document the organizational and administrative business of the Union during the triennium.

In preparing the “Reports on Astronomy”, the IAU relies on the contributions of its scientific Divisions, Commissions, and Working Groups. The Presidents and Chairpersons of these bodies organise, compile, and edit the contributions within their respective fields, often with other colleagues responsible for individual subfields. Given the vigorous development of astronomy, it is becoming increasingly difficult and time consuming to prepare such comprehensive, up-to-date reviews of all branches of our science every three years. Accordingly, some Commission Presidents have questioned the effectiveness and timeliness of continuing the Reports in their previous form, with pre-assigned page allocations to each Commission etc., given the existence of other review publications, constantly updated information sites on the World Wide Web, and standard bibliographic and indexing services. Others, in contrast, found the “Reports on Astronomy” to be essential, but deplored that insufficient space precluded a proper review.

These views probably reflect true differences in needs and style of operation between different subfields of astronomy. Recognising this, contributors to the present volume have been given the choice between two formats for their contribution: Either a compact report (2-4 pages), which focuses on a summary of the essential developments in the field over the triennium and gives references to further printed and electronic sources of more detailed and updated information, or a more comprehensive report to which more space than before could then be devoted, if desirable. Links to information on current activities can be found via the Divisional and Commission web pages linked from the main IAU web site, *www.iau.org*. While this structure leads to a less homogeneous and self-contained presentation, it is hoped that the resulting volume will better serve its intended readership.

Following these guidelines, the individual contributions have been prepared by the IAU Division and Commission Presidents and Working Group Chairpersons, using Latex files developed by Dr. Terry Mahoney as a consultant to the IAU Publisher, the Astronomical Society of the Pacific. All contributions were received, compiled, checked and corrected when necessary, and printed out in final form by Jodi Greenberg at the IAU Secretariat. I cordially thank all of them, personally and on behalf of the Union, for their efforts in producing this volume.

Johannes Andersen
General Secretary

November 1999