

## PREFACE

This volume contains the proceedings of IAU Colloquium No. 54, "Scientific Research with the Space Telescope." The editors feel no need to describe the nature of the colloquium or its scientific significance since these are eloquently described by Professor Lyman Spitzer in his opening remarks.

The formal scientific programme of the colloquium lasted 3½ days and consisted of 7 sessions of three hours. The 14 invited lectures delivered surveys of broad fields of importance for observations with the Space Telescope, each presentation lasting about 45 minutes. The remaining 45 minutes of each half-session was coordinated by a discussion leader who, besides keeping contributors to the discussion in order, generally commented on the subject area. We have included all the questions and discussion in this volume since the fields covered in the surveys were very broad and the discussions complemented the main presentations. We have concentrated upon scientific matters concerned with the astronomical and astrophysical use of the Space Telescope. Many of the contributors to the discussion kindly provided us with written versions of their comments. In other cases, the comments were transcribed, abridged and edited by the editors from the tapes of the discussion. Any misrepresentation of the significance of these comments is the fault of the editors who herewith offer their apologies in advance. We have not included discussions of purely technical questions concerning the operation of the telescope and its scientific instruments nor of the way in which the Space Telescope project will be organised in the operational phase. Discussion of many of these topics insofar as they are understood in mid-1979 can be found in the article by Bahcall and O'Dell, "The Space Telescope Observatory," which is included in the present volume. The contents of this article were not described in the formal sessions but were the subject of a lively discussion on the evening of Wednesday, August 8, 1979.

We are also fortunate in being able to include the address entitled "NASA In-House Astronomers Capabilities - Verse and Converse" given by Dr. Hinners, former NASA Associate Administrator for Space Science, at the banquet on the evening of Friday, August 10, 1979.

We are particularly grateful to all the invited lecturers for having responded so positively to our request that they provide us with camera-ready versions of their presentations. We have also received generous help and support from many other people. Mary Wisnowsky, the colloquium coordinator, solved all problems at superluminal velocity. In particular, she arranged for the preliminary typing of many of the hand-written comments by her expert staff. Don Hortenbach and his assistants ensured that the discussion was recorded and participants discreetly requested to write down their significant contributions. Molly Jones and Marion Childs typed all the discussions with amazing accuracy and speed at Cambridge. Virginia Bobo completed the typing of preface, contents, list of participants, etc. We thank all these people for their efforts which we greatly appreciate.

MSL also thanks Mr. and Mrs. A. K. Longair for hospitality in Ottawa during the period immediately following the General Assembly of the IAU in Montreal when the bulk of the scientific editing of the proceedings was completed.

Finally, we gratefully acknowledge the generous efforts of the Marshall Space Flight Center which has taken on the responsibility of publishing and disseminating the colloquium proceedings speedily and efficiently.

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