

PREFACE

The symposium on 'Solar Gamma-, X- and EUV Radiation' was held at Buenos Aires, Argentina, from 11 June to 14 June 1974. It was sponsored jointly by the International Astronomical Union (IAU) and the Committee on Space Research (COSPAR). The Organization Committee responsible for the program consisted of Drs K. A. Anderson (Chairman), J. L. Culhane, G. Elwert, B. B. Fossi, S. L. Mandel'stam, W. M. Neupert, V. K. Prokofiev, and J. Sahade and representatives of COSPAR, Drs H. Friedman and Z. Švestka. During the symposium Dr Švestka kindly represented the chairman of the Organizing Committee who was unable to attend the symposium.

The local arrangements in Buenos Aires were made by Drs J. Sahade (Chairman), H. S. Ghielmetti, M. J. Gulich, H. Molnar, J. J. Tasso and N. Martinez Riva de Tropper.

This symposium brought together the observational and theoretical aspects of the Solar Gamma-, X-, and EUV Radiation and other related solar emissions such as radio and energetic particles. There were three specific topics for the symposium, viz. X-ray and EUV emissions from solar active regions, EUV, X- and Gamma-emissions from solar flares, and mechanisms of hard photon emissions. The large improvement in our understanding of the physical processes in the active regions and flares, made possible by the various spacecraft and ground-based observations during the past few years could be clearly seen from the papers presented during the Symposium. Although only a fraction of the Skylab observations were analyzed at that time, several Skylab experimenters discussed their measurements related to the active regions and flares as well as the newly discovered solar features such as *coronal holes* and *bright points*.

The order in which the papers are included in these proceedings is somewhat different from the order in which they were presented during the symposium. Most of the papers submitted for publication were specifically related to either active regions or flares. These are included in Parts 2 and 3 respectively of these proceedings. The few papers which dealt with several aspects of solar activity or discussed coronal holes or bright points are included in Part 1. It is hoped that this organization of the proceedings will help to bring into focus the physical process occurring in the two major forms of solar activity, viz. the active regions and flares.

The excellent work done by the Organizing Committee in preparing a good program for the meeting can be clearly seen from the large number of new results presented during the symposium. About sixty scientists from twelve different countries participated in the Symposium. A total of forty-five papers were presented indicating the large amount of research currently being done in the various aspects of the Solar Gamma-, X-, and EUV Radiations.

An important part of the proceedings of a symposium is the edited transcripts of the discussions following each paper. Dr Sahade made a great effort to record on magnetic tapes the discussions that followed the presentations of the various papers. However, due to technical difficulties, it was not possible to make transcripts which could be reproduced in these proceedings.

Publication of proceedings, such as these, is possible only with the cooperation and help from many people. I am particularly thankful to Dr K. A. Anderson, Chairman of the Organizing Committee and Dr Edith A. Müller, Assistant General Secretary of the IAU, for keeping me informed about the various aspects of the program and proceedings of the symposium. Material related to the list of participants, a photograph of the participants and tapes and transcripts of the discussions were kindly provided by Dr J. Sahade. Ms Carol Legge helped with a large part of the clerical work needed in the organization of the program and the preparation of the manuscript for publication. Finally, thanks are due to Mr J. F. Hattink of D. Reidel Publishing Company for his help in bringing the proceedings to the present published form.

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