
PREFACE

The present collection of papers includes the original articles of the participants of the «VIII Ukrainian Conference and School on Plasma Physics and Controlled Fusion» which was held in Alushta, Ukraine, September 11—16, 2000 and had the status of an international conference. The Space Research Institute NSAU-NASU firstly organized the section of «Space Plasma» within the framework of the conference under financial support of National Space Agency of Ukraine. The main goal of the section was oriented on discussion of new results on space plasma, which have been received in Ukraine, and on coordination of the future research. About 40 reports concerning theoretical and applied important problems of space plasma had been presented at the section meetings.

Leading scientists and many young researchers in the area of space and astrophysical investigations represented the following organizations of Ukraine: Space Research Institute, Radio-astronomical Institute, Main Astronomical Observatory, National Taras Shevchenko University, Institute of an Ionosphere, Institute of Physics, V. N. Karazin Kharkov University, G. V. Karpenko Physical-mechanical Institute, NSC «Kharkov physical-technical institute» etc.

The subjects of the section «Space Plasma» is subdivided into the following directions:

- Investigations of nearest space plasma (ionosphere and magnetosphere of the Earth);*
- Analysis of astrophysical aspects of plasma physics.*

Most of scientific reports were dedicated to precisely these principal trends of plasma physics. The problems raised suggest several interesting leads for further research. Unfortunately, because of limited size of the volume not all the papers were included in this issue.

Finally, we would like to thank all participants of section «Space Plasma» for cooperation, and to express my acknowledgements to N. V. Turoverova, O. I. Zhudra and O. V. Klymenko for the help in preparation of the proceedings.

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