

Preface

Magnetospheric dynamics – Models and observations at multiple scales

The magnetosphere is a diverse physical system, in which the physics at many different length and time scales are intrinsically linked. With the advances in satellite observations and computer modeling, great progress has been made recently in understanding the dynamics occurring at many scales in the Earth's magnetosphere. The symposium "Magnetospheric Dynamics – Models and Observations at Multiple Scales" (Special session D3.1) was held on July 21–22, 2004 at the 35th COSPAR Scientific Assembly in Paris. This symposium was a forum in which results from computational models and observations on multiple scales could be discussed. The organizing committee for this session was Michael Wiltberger (Main Session Organizer) and M. Grande (Deputy Organizer). We would like to put on record our appreciation and thanks to the Organizing Committee members for their hard work in assembling an excellent scientific program for this special session.

This issue of *Advances in Space Research* contains papers drawn from the special session D3.1 of COSPAR 2004. All papers had undergone the *ASR* review process (reviewed by at least two referees) before they were finally accepted for this special issue. The papers cover a broad range of topics related to oscillations and waves in the magnetosphere, the transport of plasma, structure and distribution of plasma, the ionospheric response to magnetospheric flows, and a few other topics.

We greatly appreciate the help received from all the referees who spent substantial time reviewing the manuscripts. Their valuable suggestions and comments lead to substantial improvements of the papers that were ultimately accepted. Some of the referees wished to remain anonymous. We are happy to acknowledge the help from the following referees who kindly agreed to be included in this general list: J. B. Cao, M. Engebretson, C. L. Huang, H. Karimabadi, M. Liemohn, M. Lester, R. Lukianova, F. Menk, R. Nakamura, T. Nagai, W. Peterson, S. J. Schwartz, D. Sibeck, A. Shinbori, D. F. Smart, A. Vaivads, C. Waters, S. Wing, and A. Yau.

Finally we would like to thank the Committee on Space Research (COSPAR) for sponsoring this special session.

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