## **Preface**

The Japan Earth and Planetary Science Joint Meeting 2005 was held in Makuhari, Chiba, Japan from May 22 to 26, 2005. It primarily consisted of domestic assemblies of 25 Japanese societies in the field of earth and planetary sciences with 2200 papers and about 3000 participants. As the first attempt, we also had four international sessions consisting of oral presentations in English in order to provide foreign scientists with opportunities of oral presentations. We also encouraged Japanese participants to submit their papers to the international sessions for interaction with foreign participants through English presentation. The conveners of the following three international sessions agreed to work as the guest editors of a special issue of Earth, Planets and Space.

- 1. "Dynamics and energetics in the low-altitude polar thermosphere: DELTA campaign"
- 2. "Space and ground measurements of sprites, jets and elves—21COE E-ASTEC Workshop"
- 3. "Nonlinear Processes in Earth and Planetary Science"

The present special issue commemorates the establishment of the Japan Geoscience Union (JpGU) consisting of 24 societies as well as the first international sessions in the 17 year history of the Japan Earth and Planetary Science Joint Meeting. The number of the member societies has increased to 44, and its activity has also been expanding to a wider rage, involving international programs and societies. This special issue shall be remembered as the first result of its international collaboration. Finally, we thank the following colleagues for their contribution in reviewing the manuscripts for this issue: G. Auad, T. A. Blix, A. Brekke, S. C. Buchert, R. Collins, S. Cummer, M. Friedrich, H. Fujiwara, M. Fullekrug, J. Hoeffer, U. P. Hoppe, Y. Kim, M. Kosch, M. Kubota, M. F. Larsen, T. Miyake, H. Miyaoka, T. Nakamura, T. Neubert, D. Nunn, C. Price, S. Saito, J. Sakai, G. Satori, C.-Y. She, H. Shinagawa, D. Summers, K. Svenes, Y. Takahashi, L. Thompson, F. Verheest, E. Williams, and Q. Wu.

Guest Editors: Yoshiharu Omura

Takumi Abe Gurbax Lakhina Satonori Nozawa Yukihiro Takahashi Eivind Thrane Yoav Yair