

INTRODUCTION

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IAU Symposium No. 81, "Dynamics of the Solar System", was held at the Hydrographic Office, Tokyo, Japan, during 23-26 May 1978. The Symposium was cosponsored by COSPAR and IUTAM, and generous financial support was also provided by the Japan Society for the Promotion of Science. IAU sponsorship was through Commissions 4, 7 and 20, and the Scientific Organizing Committee consisted of the current Presidents, Vice Presidents and immediate Past Presidents of these Commissions: V. K. Abalakin, R. L. Duncombe, Y. Kozai, L. Kresák, B. G. Marsden (Chairman), P. J. Message, A. M. Sinzi, G. Sitarski and V. G. Szebehely.

There were 64 participants from 15 countries, and 55 invited and contributed papers were read. The papers covered all branches of research on solar-system dynamics, and the eight sessions (chaired by Y. Kozai, V. G. Szebehely, W. Fricke, A. M. Sinzi, G. Sitarski, B. G. Marsden, R. L. Duncombe and J. Schubart, respectively) basically included papers on the stability of the solar system, the restricted and general three-body problems, the status of the Ephemeris, theories of the motions of the natural satellites, studies on commensurable motions of the minor planets, dynamical and physical investigations on the origin and evolution of comets, planetary theory, and the dynamics of the rings of Saturn and Uranus. The order of the papers has been somewhat rearranged in this proceedings volume (edited by R. L. Duncombe), which presents the scientific contributions in six main sections.

Only twice has an IAU Symposium ever been held in Japan, and it was particularly appropriate that a meeting on the dynamics of the solar system could be held in the homeland of Prof. Y. Hagihara, the most distinguished living celestial mechanician. Prof. Hagihara served as a Vice President of the IAU during 1961-1967 and as President of Commission 7 during 1964-1967, and although now 81 years old, he was able to attend at least part of the sessions on each day of the Symposium. As noted elsewhere, these proceedings are being dedicated to him. During the Symposium Prof. Hagihara was also honored by having his name attached both to a minor planet and to a certain hyperelliptic integral that plays an important role in the theory of the Trojan group of minor

planets. The citation for the name of the minor planet appears in full on Minor Planet Circ. Nos. 4419-4420; for information about the Hagihara integral, the reader is referred to the paper by B. Garfinkel in this volume.

The efforts of the local organizers in making IAU Symposium No. 81 a success are greatly appreciated. The Local Organizing Committee consisted of G. Hori, H. Kinoshita (Secretary), Y. Kozai (Chairman) and A. M. Sinzi, but sincere thanks are also due the great number of students and other assistants who ensured that the Symposium was conducted with typical Japanese efficiency.

IN MEMORIAM

The editor notes with sorrow the death of Prof. Y. Hagihara on 29 January 1979.

ACKNOWLEDGEMENT

In the preparation of this volume, the editor gratefully acknowledges the cooperation and assistance of Dr. Y. Kozai, Dr. B. G. Marsden, Mrs. J. S. Duncombe, Chris Wing and Susie Thorn.

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| 1. Nakai, H.* | 23. Duncombe, R.L. | 45. Liu, S. |
| 2. Yoshida, H.* | 24. Message, P.J. | 46. Rickman, H. |
| 3. Noguchi, M.* | 25. Kresák, L. | 47. Kitamura, M.** |
| 4. Soma, M.* | 26. Kinoshita, H. | 48. Hori, G. |
| 5. Nakano, S.** | 27. Marchal, C. | 49. Carusi, A. |
| 6. Van Flandern, T.C. | 28. Bretagnon, P. | 50. Lagerkvist, C.I. |
| 7. Sasaki, M.* | 29. Nacozy, P.E. | 51. Kiang, T. |
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| 9. Sato, H.* | 31. Cheon, K.J. | 53. Kimura, H. |
| 10. Nagai, R. | 32. Goldreich, P. | 54. Hatanaka, F.* |
| 11. Yuasa, M. | 33. Sugawa, C. | 55. Matsunami, N. |
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| 13. Brahic, A. | 35. Froeschlé, C. | 57. Greenberg, R. |
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| 17. Garfinkel, B. | 39. Delsemme, A.H. | 61. Bec-Borsenberger, A. |
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| 19. Hagihara, Y. | 41. Yabushita, S. | 63. Watanabe, N. |
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| 21. Kozai, Y. | 43. Everhart, E. | 65. Jefferys, W.H. |
| 22. Marsden, B.G. | 44. Stellmacher, I. | 66. Sekiguchi, N. |

* L.O.C. staff. ** registered guest.

