

PREFACE

The Journées 2003 “Systèmes de référence spatio-temporels”, with the sub-title “Astrometry, geodynamics and solar system dynamics: from milliarcseconds to microarcseconds”, have been held from 22 to 25 September 2003 in Saint Petersburg. They have been organized with the help of the Ministry of Science and Technology of Russian Federation, the Russian Foundation for basic Research, St Petersburg Scientific Center of RAS and Institute of Applied Astronomy. The Conference took place in the buildings of Saint Petersburg Scientific Center and of the Institute of Applied Astronomy (IAA) of Russian Academy of Sciences. A one-day visit of the Svetloe Radio Astronomical Observatory (SvRAO) was organized by the IAA on the third day, which allowed the participants to see real VLBI observations performed with this radiotelescope during a VLBI session in the framework of the International VLBI Service for geodesy and astrometry. The meeting ended with a typical Russian buffet organized at the IAA.

These Journées, which were the fifteenth conference in this series, have been organized jointly by the IAA and Paris Observatory, reflecting the long term tradition of cooperation between our two institutes. The previous Journées have been organized in Paris each year from 1988 to 1992 and alternately, since 1994, in Paris and the following European cities: Warsaw (1995), Paris (1996), Prague (1997), Paris (1998), Dresden (1999), Paris (2000), Brussels (2001) and Bucharest (2002).

The main goal of the Journées 2003 was to discuss the most recent results in astrometry, geodynamics, ephemeris astronomy and celestial mechanics in the context of improving the celestial and terrestrial reference systems and determining their mutual orientation at a sub-milliarcsecond level of accuracy. Special attention has been paid to develop the methods of processing high precision observations of VLBI, SLR and GPS techniques on the basis of the new standards of the IERS Conventions (2003). About 100 participants from 14 countries attended this meeting that included 14 invited papers, 38 oral communications and 41 posters. The general sessions were “Celestial and Terrestrial Reference Frames: Techniques, Definitions and Links”, “Rotation of the Earth and other Planets: Observations and Models (Orlov’s Session)”, “Plate tectonics, Crustal deformations and Geophysical fluids”, “Solar System Dynamics” and “Relativity and Time”. Each session included invited papers and oral contributions and the poster sessions were summarized with short oral presentations. In addition, a special session on “Highlights of the 25th IAU General Assembly on Reference Systems and Fundamental Astronomy” provided information about the scientific meetings in these topics that took place at the latest General Assembly of the International Astronomical Union in July 2003 in Sydney; the session included summaries of the major IAU Division I meetings and a panel discussion.

These Proceedings are divided into six sections corresponding to the sessions of the meeting. The list of participants is given on pages vii and viii, the scientific programme on pages ix to xiii. A Table of Contents and a Postface are given on pages iii to v and 355, respectively. The Postface gives the announcement for “Journées” 2004 in Paris.

We thank the Scientific Organizing Committee for its valuable contribution to the elaboration of the scientific programme and all the authors of the papers who have sent their contribution in the required form and within the required deadline. We would like to thank the Local Organizing Committee and especially Victor Brumberg and Nadia Shuygina for their very efficient work before and during the meeting and the staff of the Institute of Applied Astronomy as well for their kind welcome at IAA. We are grateful to N. Shuygina, D. Ryzhkova and O. Becker for their efficient technical help for the publication.

The organizers of the “Journées 2003”,

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19 July 2004