

TABLE OF CONTENTS

PREFACE	vi
LIST OF PARTICIPANTS	vii
SCIENTIFIC PROGRAM	ix
LIST OF POSTERS	xiii
SESSION 1: MODERN ASTROMETRY, TIME AND THEORY OF EARTH'S ROTATION	1
Klioner S. , Soffel M.: The relativistic reference systems as a tool to model Earth rotation . . .	3
Englich S., Schuh H.: Models for high accurate space geodetic observations	9
Brumberg V., Ivanova T.: On general Earth's rotation theory	14
Teyssandier P.: Some recent developments in relativistic modeling of time and frequency transfers	16
Fukushima T.: Canonical elements of rotational motion	19
J. Vondrák et al.: Towards a long-term parametrization of precession	23
Pashkevich V.: Investigation of the short periodic terms of the rigid and non-rigid Earth rotation series	27
Dumin Yu.V.: Influence of the relativistic lambda-term on the measured values of the Earth's rotation deceleration	31
Štefka V. et al.: Solving the rotational Earth's equations in rectangular coordinates for a non-rigid Earth	33
SESSION 2: RELATIVITY AND NUMERICAL STANDARDS IN FUNDAMENTAL ASTRONOMY, EPHEMERIDES	35
Luzum B. et al.: Current status of the IAU Working Group for Numerical Standards of Fundamental Astronomy	37
Petit G.: Relativistic aspects in astronomical standards and the IERS Conventions	41
Capitaine N.: Nomenclature and numerical standards for IAU models and IERS conventions for Earth rotation	46
Wallace P.: Recent SOFA developments	50
Folkner W., Border, J.S.: The Planetary Ephemeris Reference Frame	54
Pitjeva E.V.: Ephemerides EPM2008: the updated model, constants, data	57
Yagudina E.I.: Lunar numerical theory EPM2008 from analysis of LLR data	61
Fienga A. et al.: Evolution of INPOP planetary ephemerides	65
Manche H. et al.: The geodesic precession in the INPOP ephemerides	69
Capitaine N., Guinot B.: The astronomical units	73
Débarbat S.: On the history of the astronomical constants	75
Hohenkerk C. et al.: Numerical standards in The Astronomical Almanac	77
Kudryavtsev S., Kudryavtseva N.: Analytical representation of Pluto modern ephemeris	79
Le Poncin-Lafitte C., Lainey, V.: Remarks about relativistic deep space navigation	81
Pitjeva E.V., Standish E.M.: Values of some astronomical constants proposed for NSFA	83
Kuchynka P. et al.: Improving the asteroid perturbations modelling in planetary ephemerides .	84
SESSION 3: GLOBAL GEODYNAMICAL MODELLING	87
A. Brzeziński: Recent advances in theoretical modeling and observation of Earth rotation at daily and subdaily periods	89
Gross R.: Ocean tidal effects on Earth rotation (Abstract)	95
Rülke A. et al.: Realisation of the Terrestrial Reference System by a global GPS network as a basis for global geodynamic investigations (Abstract)	96
Escapa A., Fukushima T.: Analytical computation of the translational internal motion of a simple non-isobarycentric three-layer Earth model	97
Yatskiv Y.: On optimal detection and estimation of the FCN parameters	101

Sen A.K. et al.: Is the length-of-day time series normally distributed?	105
Sündermann J., Hense, A.: A physically consistent system model for the study of the Earth's rotation, surface deformation and gravity field parameters	109
Winkelkemper T.: Atmospheric simulations of Earth rotation parameter variations (Abstract)	114
Dill R. et al.: Hydrological induced Earth rotation variations from stand-alone and dynamically coupled simulations	115
Müller M. et al.: Earth rotation parameters obtained from a dynamically coupled atmosphere-hydrosphere model	119
Seitz F., Drewes, H.: Simulation of polar motion with a dynamic Earth system model over a period of 200 years (1860-2060)	123
Groh A. et al.: Determination of crustal deformations and sea-level changes in the Baltic Sea region (Abstract)	127
Akulenko L. et al.: Multi-frequency analysis of oscillation-rotational motion of deformable Earth	128
Bondarenko V., Perepiolkin V.: Modelling irregularities of the Earth's rotation	129
Chapanov Ya., Gambis D.: Change of the Earth moment of inertia during the observed UT1 response to the 11-year solar variation	131
Cottureau L., Souchay J.: An analytical theory of the rotation of Venus	133
Dehant V. et al.: Rotation and internal dynamics of Mars from future geodesy experiments . .	135
Englich S. et al.: Direct estimation of tidally induced Earth rotation variations observed by VLBI	137
Milkov D.A. et al.: Non-linear vector ANN predictor for Earth rotation parameters forecast . .	139
Miguel D. et al.: Contributions of the third degree harmonics to the nutation of a two-layer and three-layer Earth models	141
Nastula J. et al.: Comparison of regional hydrological excitation of polar motion derived from hydrological models and the GRACE gravity field data	143
Niedzielski T., Kosek W.: Regional sea level prediction and its relation to El Niño Southern oscillation	145
Rzeszotko A. et al.: Detection of time-frequency relations between geodetic and geophysical excitation functions of polar motion	147
Seoane L. et al.: Hydrological excitation of polar motion	149
SESSION 4: OBSERVATIONS OF GLOBAL GEODYNAMICS	151
Bizouard C. et al.: Combination of EOP from different techniques	153
Rothacher M.: GGOS and the combination of space geodetic techniques (Abstract)	159
Stamatakos N. et al.: Recent improvements in IERS Rapid Service/Prediction Center products	160
Malkin Z.: Improving short-term EOP prediction using combination procedures	164
Kosek W. et al.: Contribution of wide-band oscillations excited by the fluid excitation functions to the prediction errors of the pole coordinates data	168
Fetisov S. et al.: Earth orientation parameters from GLONASS observations (Abstract)	172
Horwath M., Dietrich R.: Geophysical mass redistributions from GRACE: the case of the Antarctic and Greenland ice sheets (Abstract)	173
Sidorenkov N., Wilson, I.R.G.: The decadal fluctuations in the Earth's rotation and in the climate characteristics	174
Chapanov Ya. et al.: 22-year oscillations of UT1, core angular momentum and geomagnetic field	178
Biskupek L., Müller J.: Lunar laser ranging and Earth orientation	182
Zerhouni W. et al.: What could bring LLR observations in determining the position of the celestial pole	186
Kudryashova M. et al. : Contribution of the complete GLONASS constellation to the estimation of nutation rates	190
SESSION 5: DEVELOPMENTS IN ASTRONOMICAL REFERENCE FRAMES	193
Ma C.: Present and future radio reference frames	195
Jacobs C.: Realizations of the celestial reference system at different wavelengths (Abstract) . .	198
Andrei A.H. et. al.: Astrometric and photometric variability in quasars	199
Zharov V. et al.: Apparent motion of the radio sources and stability of the celestial reference frame	203

Bolotin S., Lytvyn S.: Investigation of stability of radio sources from arc-length method	207
Boboltz D. et al.: VLBA imaging of sources at 24 and 43 GHz	211
Souchay J. et al.: The LQAC (Large Quasar Astrometric Catalogue): principle of compilation and related studies	215
Gaume R. et al.: The Joint Milli-arcsecond Pathfinder Survey (JMAPS): Introduction and science possibilities	219
Tsvetkov A. et al.: Wavelet analysis of huge stellar catalogues	223
Aguilar A. et al.: QSOs photometric identification for astrometric reduction of CCD images . .	227
Damljanović G.: Separation of proper motion from orbital one of double or multiple stars by using Hipparcos and ground-based observations	229
Fey A., Boboltz D.: Absolute astrometry from VLBA RDV observations	231
Kurdubov S., Skurikhina E.: Source selection for ICRF defining set from source position time series analysis	233
Liu J., Zhu Z.: Rotation curve of outer disk from UCAC2 catalogue	235
V. L'vov et al.: Forthcoming close approaches of Jupiter and Saturn to geodetic radio sources .	237
Malkin Z., Popova E.: An analysis of source motions derived from position time series	239
Souchay J. et al.: Specific study of the gravitational effects of Ceres, Pallas and Vesta on Mars and the Earth's orbital parameters	241
Taris F. et al.: Astrometry with ground based optical telescopes	243
Tsvetkov A. et al.: The kinematical analysis of proper motions and radial velocities of stars by means of the vector spherical harmonics	245
Zharov V., Rastorgueva E.: Comparison of the time series of coordinates of the ICRF sources .	247
Zhu Z., Liu J.: Reconsidering the definition of galactic coordinate system and galactic constants	249

POSTFACE