JOURNÉES 2001 SYSTÈMES DE RÉFÉRENCE SPATIO-TEMPORELS
« *Influence of geophysics, time and space reference frameson Earth rotation studies* »

Scientific Organizing Committee : V. Dehant (Chair), A. Brzezinski, N. Capitaine, M. Soffel, J. Vondrak, Y. Yatskiv

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SCIENTIFIC PROGRAMME

Monday 24 September

Session 1.Influence of geophysical and other effects on Earth's orientation; sensitivity of the observing systems.

C.Ma : *The effect of reference frames on EOP estimates from VLBI.*

J.Vondrak, *C.Ron, D. Gambis,C.Bizouard and R.Weber* *: Combined celestial pole offsets from VLBI and GPS.*

Fukushima, **T.Shirai** : *Geophysical parameters estimated from VLBI nutation analysis.*

Ch.Huang, V.Dehant : *Effect of differential rotation on nutation and displacement fields of the Earth interior.*

P.M.Mathews and **P.Bretagnon** : *High frequency nutation*.

Z.Malkin : *A comparative analysis of the VLBI nutation series*.

M.Feissel, **M.Yseboodt**, **V.Dehant**, **O.de Viron** and **C.Bizouard** *: How much can we cheat the non-rigid Earth nutation theory to make it match VLBI results ?*

Ph.Yaya : *Combination of several geodetic techniques to determine earth orientation parameters.*

A.Brzezinski, N.Capitaine : *Lunisolar perturbations in Earth rotation due to the triaxial figure of the Earth: geophysical aspects.*

J.Nastula : *Atmospheric signals in polar motion excitation.*

C.Bizouard, S.Lambert : *Atmospheric and oceanic forcing in polar motion and length of day.*

N.Sidorenkov : *Chandler Wobble of the pole as part of the inter-annual oscillation of the atmosphere-ocean-Earth system.*

J.Nastula, B.Kolaczek and D.Salstein : *Variation of anomalies of atmospheric excitation function of polar motion in 1980-1999.*

W.Kosek, D.McCarthy and B.Luzum : *El Nino impact on polar motion prediction errors.*

O.Kudlay : *Atmospheric angular momentum irregularity effect on the Earth rotational eigenmodes.*

Session 2: Geodesy and rotation of the other planets

J.P. Barriot : *Netlander ionosphere and geodesy experiment on the planet Mars.*
A.Rivolidini, P.Defraigne, V.Dehant, T.Van Hoolst *: Free and forced response of a non-rigid Mars with an inner core. II. Numerical approach.*
M.Stavinschi, V.Mioc : *Earth effects of Mars' rotation on orbiter dynamics.*
O.de Viron, E.Van Den Acker, T.Van Hoolst, P.Defraigne, V.Dehant *: Comparison between the atmospheric forcing on Earth and Mars.*
T.van Hoolst, V.Dehant : *Tides of the planets Mars and Mercury.*
S.Bouquillon : *Mercury libration: first stage.*
G.Carpentier and F.Roosbeek : *Analytical developments of rigid Mercury nutation series.*
V. Pletser : *How astronauts would conduct a seismic experiment on the planet Mars*

Tuesday 25 September

Session 3: Time and time transfer

G.Petit : *The new IAU conventions for coordinate times and time transformations.*
B.Coll : *Physical relativistic frames.*
P.Teyssandier : *Relativistic theory of time and frequency transfer using the Synge's world-function.*
P.M.Mathews : *Time based on Earth rotation.*
N.Dimarcq : *Ultra stable clocks on board the international space station: the ACES project.*
P.Defraigne : *Time transfer with geodetic receivers.*
J.Nawrocki : *Polish atomic time scale, organization and results.*

Session 4: Local, regional and global terrestrial frames, station positions and their interpretation; influence of the geophysical fluids, tidal, ocean and atmospheric effects

R.Weber, C. Bruyninx, H.G. Scherneck, M. Rothacher, P.H. Anderson,T.F. Baker, T.van Dam : *Tidal effects in GPS/GLONASS data processing.*
J.Hefty : *Tidal variations of station coordinates observed in regional GPS permanent network.*
V.Suberlak : *Presentation of new SLR station "Golosiiv-Kiev".*
M.Greff-Lefftz : *LICODY: the dynamics of the fluid core from gravity signals.*

Poster presentation

Session1 :

H.Shuh, P.Varga, T.Seitz, J.Böhm, R.Weber, G.Mentes, Z.Zavoti : *Sub-semidiurnal variations of the EOP observed by space geodesy compared with other geophysical phenomena.*
S.Uras, A.Poma *: ERP and climate.*
M.Kudryashova *: Analysis of sub diurnal EOP variations.*
M.L. Bougeard, N. Rouveyrollis, D. Gambis : *A comparison study of EOF techniques in the determination of episodic terms in the 1999-2000 Polar Motion.*

Session2 :

M.Yseboodt :: *A simplified analytical formulation of the NEIGE orbiter/lander geodesy observable.*
V.Dehant *:: Comparison between the nutations of the planet Mars and the nutations of the Earth.*
V.Dehant *:: Free and forced response of a non-rigid Mars with an inner-core. I. Analytical approach.*

Session3 :

V.Zalutsky, V. Akulov, L. Kurisheva, N. Maksimovich : *About activity of the Russian Time-Frequency Service Siberian Metrological Center in the field of time metrology with the aid of GPS and GLONASS.*

Session4 :

Ch.Boualem : *Le projet : Système de référence de l'Afrique du nord "NAFREF".*
G.Damljanovic, M.S.De Biasi *: Classical astrometry longitude and latitude determination by using CCD technique.*
V.Zalutsky, K.Palamartchouk, L.Chirkov : *Impact of Irkutsk GPS/GLONASS station into supporting of the geodynamics phenomena monitoring networks.*

Session5 :

M.Castillo : *Monitoring reference systems: A try of global approach.*
M.J. Martinez Uso : *Comparison of analytical and geometrical methods of astrometric corrections in modern catalogues.*

Wednesday 26 September

Session 5: Ephemeris and dynamical reference systems

M.Soffel : *The new IAU resolutions concerning relativity: questions and answers.*
S.Klioner : *The Earth's rotation in the framework of GRT: rigid (multipole) models.*
A.Escapa , J. Getino, J.M Ferràndiz : *Application of Poincaré's formalism to the study of the free rotation of a three-layer Earth model.*
V.Pashkevich and G.Eroshkin : *High-Precision Numerical Theory of the Earth rotation : Main Principles of Construction and Results.*
N.Capitaine : *Theoretical considerations on precession and nutation referred to the GCRS.*
J.Chapront : *Contribution of Lunar Laser Ranging to metrology.*
P.Bretagnon : *Analytical solution of the Mars motion.*
S.Kudryavtsev : *Compact representation of spherical functions of Sun/Moon.*
A.Escapa , J.Getino , J.M.Ferràndiz *: Influence of the triaxiality of the non-rigid Earth on the J2 forced nutations.*