



XXVI IAU General Assembly

Prague - August 2006



INTRODUCTION TO

Joint Discussion 16

Nomenclature, Precession And New Models

In Fundamental Astronomy

Tuesday 22 (full day) & Wednesday 23 (a.m.) - August 2006

Room Club H6

Nicole Capitaine, Observatoire de Paris, France

Introduction to Joint Discussion 16



Joint Discussion 16



NOMENCLATURE, PRECESSION AND NEW MODELS IN FUNDAMENTAL ASTRONOMY (Applications and scientific contribution to astronomy)

Duration of the meeting: 1.5 day

Coordinating IAU Division/Commission:

Division I (Fundamental Astronomy)/ Commission 19 (Rotation of the Earth)

Participating IAU Divisions: X (Radio Astronomy)

Participating IAU Commissions: 4 (Ephemerides), 5 (Documentation and astronomical data),
7 (Celestial Mechanics and Dynamical Astronomy), 8 (Astrometry), 31 (Time), 40 (Radio Astronomy)

Other supporting Organization: IAG (International Association of Geodesy)

Scientific Organizing Committee:

N. Capitaine (France), J. Vondrák (Czech Rep.), J. Hilton (USA) (Chairpersons)

A. Brzezinski (Poland), M. Calabretta (Australia), V. Dehant (Belgium), T. Fukushima (Japan),
K. Johnston (USA), I. Kumkova (Russia), A. Milani (Italy), R. Nelson (USA), K. Seidelmann (USA),
M. Soffel (Germany)

Editors of the Proceedings : N. Capitaine, J. Vondrák, J. Hilton

Instructions to authors provided on the JD16 web page

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JD16 Rationale

Context

- The series of resolutions passed by the IAU at its GAs in 1997 and 2000 are the most significant set of international agreements in fundamental astronomy in several decades. These resolutions concern the definition of the astronomical reference systems and transformations between them, which are required when dealing with the Earth's rotation or when computing directions of celestial objects in various systems.
- Continuing efforts have been made since 2000 to implement these resolutions, and to prepare a well defined terminology and high accuracy models associated with this implementation. The adopted reference systems and the high-accuracy models which have been recently developed make possible various scientific applications in a number of fields of astronomy.

Objectives

1. To introduce the general astronomical community to the state of the art in the implementation of the IAU resolutions and ICRS, the nomenclature in fundamental astronomy and the high-accuracy models for precession, the ecliptic and other astrometric models for reducing high-accuracy observations.
2. To present scientific applications of high accuracy astrometric observations, models and accurate realizations of reference systems for ephemerides, celestial mechanics, astrometry, Earth rotation, time and radio-astronomy.

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JD16 Program

Oral Sessions

Tuesday 22 August 2006 (a.m.)

Session 1: State of the art of the implementation of the IAU Resolutions and the ICRS

Session 2: Precession and the Ecliptic

Short poster review

Tuesday 22 August 2006 (p.m.)

Session 3: High accuracy models for reducing astronomical observations

Session 4: New terminology in fundamental astronomy, time and relativity

Wednesday 23 August 2006 (a.m.)

Session 5: Scientific applications of high accuracy astronomy

Session 6: General Discussion and educational efforts

The duration of the talks is:

20 min for invited talks including discussion and *10 min* for the oral communications

5 min for discussion at the end of each series of invited papers and of oral papers

Due to the large number of presentations, the speakers are requested to be very strict with the time that is allocated

Poster Session

Tuesday 22 August 2006, Terrace II (T2), 2nd floor

12:30-13:00 and continuation at 17:30-18:00

JD16 posters will be displayed during the second week of the GA

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