

IERS Standards

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Due to weather-related travel delays Dr. McCarthy was unable to present his scheduled paper. In his absence, however, Dr. K. Yokoyama, Chairman of the International Earth Rotation Service (IERS), reported on the status of the revision of the IERS Standards carried out by McCarthy who provided the following precis.

These standards are meant to be used in the reduction of observations contributed to the IERS and by those who require IERS estimates of polar motion, Universal Time and nutation to establish the most precise celestial and terrestrial reference systems. The goal of the IERS is to publish the document, an update of the previous version (McCarthy, 1989), in the beginning of 1992.

The revised IERS Standards will contain chapters on numerical standards, the celestial and terrestrial reference systems, the transformation between celestial and terrestrial systems, the geopotential, solid Earth tides, the ocean tide model, local site displacements, tidal variations in UT1, the tropospheric model, lunar and planetary ephemerides, radiation pressure, the general relativistic dynamical model and general relativistic terms for propagation, time, and coordinates. The revisions will include changes to be made in the numerical standards to agree with recent IAU and IUGG recommendations, estimates of the transformations between IERS systems and other systems, a new plate motion model, geodesic precession/nutation, procedures to be used to incorporate the option of the "nonrotating origin", a glacial rebound model, and revised relativistic modeling.

It is anticipated that there will not be significant differences with procedures and constants recommended by the IAU or the IUGG. The most controversial change, the use of the "nonrotating origin" of Guinot (1979) will be included as a possible option in addition to the more conventional procedure used to calculate the positions of objects in the celestial reference frame.

References

- McCarthy, D.D., 1989, IERS Standards, IERS Technical Note 3, Observatoire de Paris, Paris
- Guinot, B., 1979, "Basic problems in the kinematics of the rotation of the Earth", in *Time and the Earth's Rotation*, D.D. McCarthy and J.D. Pilkington (eds), D. Reidel Publishing Company.

DISCUSSION

Fukushima:

One question; Is there any possibility to receive the next IERS standards in a machine readable form?

Yokoyama:

If you say so, we will try to do so.