

3.5.3 Conventions Centre

Introduction

The Conventions Centre is operated jointly by L'Observatoire de Paris (OP) and the U.S. Naval Observatory (USNO). It provides updated versions of the IERS Conventions in electronic form following their approval by the IERS Directing Board (DB). In addition to the electronic releases, printed versions will be provided at less frequent intervals or when major changes are introduced.

IERS Conventions web and ftp sites that were redesigned in 2017 are located at: a) <http://iers-conventions.obspm.fr/>, b) <http://maia.usno.navy.mil/conventions/>, and c) <ftp://maia.usno.navy.mil/conventions>. The printed IERS Conventions (2010), IERS Technical Note 36, is available in electronic form at these URLs and at <https://www.iers.org/IERS/EN/Publications/TechnicalNotes/TechnicalNotes.html>. Updates continue to be provided in electronic form and can be found at:

- <http://iers-conventions.obspm.fr/updates/2010updatesinfo.php> and
- <http://maia.usno.navy.mil/conventions/updates/2010updatesinfo.php>

The IERS Conventions Center continues to work with the IAU Division A Commission on Fundamental Standards that deals with celestial and terrestrial reference systems/frames and the transformations among them, time scales, precession-nutation models, Earth rotation and polar motion, including physical models (e.g., Earth's gravity field, solid Earth-tide modeling), star catalogues, ephemerides of Solar System bodies, special and general relativistic models for time and space.

Technical Content of the IERS Conventions

Recent changes in the technical content included the following:

- A revised value of the potential of the geoid, W_0 , in Table 1.1 in accord with Resolution (1) of the International Association of Geodesy (2015) for the definition and realization of an International Height Reference System (IHRM) and
- Section 7.1.4 of the IERS Conventions was rewritten to provide the definition and realization of a secular (linear) pole to replace the previous mean pole.

After considerable discussion, the IERS decided to adopt the usage of a conventional secular pole to represent the low-frequency motion of the Earth's rotation axis with respect to the terrestrial reference system. Previous discussion in that section regarding a "mean pole" was deleted. In addition to the change in Chapter 7, revisions of text in Section 6.1 regarding gravitational potential coefficients were also made necessary to be consistent with the change in Chapter 7. Corresponding changes to the Glossary section are being considered.

Table 1: *Status of participation in the IERS Conventions major update.*

#	Chapter Title	Position	Applicant
1	General Definitions and Numerical Standards	Chapter Editor-in-Chief	Y
		Chapter Expert	N
		Assistant Chapter Expert	N
2	General Relativistic Models for Space-Time Coordinates and Equations of Motion	Chapter Editor-in-Chief	N
		Chapter Expert	Y
		Assistant Chapter Expert	N
3	Celestial Reference System and Frame	Chapter Editor-in-Chief	Y
		Chapter Expert	N
		Assistant Chapter Expert	Y
4	Terrestrial Reference Systems and Frames	Chapter Editor-in-Chief	N*
		Chapter Expert	N
		Assistant Chapter Expert	N
5	Transformation Between the International Terrestrial Reference System and the Geocentric Celestial Reference System	Chapter Editor-in-Chief	Y
		Chapter Expert	N
		Assistant Chapter Expert	Y
6	Geopotential	Chapter Editor-in-Chief	Y
		Chapter Expert	Y
		Assistant Chapter Expert	Y
7	Displacement of Reference Points	Chapter Editor-in-Chief	Y
		Chapter Expert	Y
		Assistant Chapter Expert	Y
8	Tidal Variations in the Earth's Rotation	Chapter Editor-in-Chief	N
		Chapter Expert	N
		Assistant Chapter Expert	Y
9	Models for Atmospheric Propagation Delays	Chapter Editor-in-Chief	N
		Chapter Expert	N
		Assistant Chapter Expert	N
10	General Relativistic Models for Propagation	Chapter Editor-in-Chief	N
		Chapter Expert	Y
		Assistant Chapter Expert	N
Software Associated with Chapters 1 through 10		Software Editor-in-Chief	Y

* A person has possibly expressed verbal interest in being an Editor-in-Chief or Expert for Chapter 4, however, a written request to participate has not been received. Consequently, it is unknown to which position the person is considering.

Conventions Software Software recommended for use in connection with the IERS Conventions consists largely of the library maintained by the IAU Standards of Fundamental Astronomy (SOFA) available at www.iausofa.org. The 14th release of this library was made available recently. This release implements two new sections entitled Horizon/Equatorial Coordinates and Gnomonic (tangent plane) Projections. Three routines were added covering transformations between Astrometry Tools Cookbook, test programs and supporting files. This release implements two new sections entitled Horizon/Equatorial Coordinates and Gnomonic (tangent plane) Projections. Three routines were added covering transformations between the azimuth and altitude angles and the hour and declination angles. Six routines were added regarding the determination of the tangent point and transformations of star positions to and from celestial and tangent plane coordinates.

Major Conventions Update In anticipation of the possible publication of a new printed edition of the IERS Conventions, the IERS requested volunteer participants as Chapter Editor-in-chief, Chapter/Assistant Experts, and Software Editor. Interested candidates submitted their curricula vitae along with a possible letter of support from their sponsoring agency. Table 1 lists the Conventions Major Revision Chapters along with a list of positions for which there are applicants as of the writing of this report (September 2018).

Acknowledgements The Conventions web pages at OP <http://iers-conventions.obspm.fr/> and USNO <http://maia.usno.navy.mil/conventions/> were maintained and improved. The IERS Conventions Centre would like to acknowledge the work of Maria Davis from USNO and Teddy Carlucci from OP for their work on the updated IERS web and ftp sites.

Conventions Center Staff Christian Bizouard (OP), co-director since 1 September 2016 (and current representative to the IERS Directing Board)
Nick Stamatakos (USNO), co-director since 1 January 2016. (Per existing agreement between the IERS DB and the IERS Conventions, the USNO co-director will become the representative to the IERS Directing Board on 1 January 2019.)
Sébastien Lambert (OP)
Maria Davis (USNO)
Dennis McCarthy (USNO, retired)

Nick Stamatakos, Christian Bizouard