



Towards a new reference edition of the IERS Conventions

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The IERS main products are the celestial and terrestrial reference frames, ICRF and ITRF, and the set of Earth orientation parameters to transform between them. Because several independent techniques are used to generate the ITRF, its quality strongly depends on using a consistent and complete set of models and procedures in the realization. The IERS Conventions are designed to provide these. The latest reference edition is the Conventions (2003) and numerous changes have already occurred, which are provided in an electronic version available at <http://tai.bipm.org/iers/convupdt/convupdt.html>.

An IERS workshop on Conventions was held on September 20-21, 2007 at the BIPM, with the goals of discussing models recently introduced or considered for introduction in the Conventions, presenting results of tests for these models, and defining the directions towards a next reference edition of the Conventions.

This paper will present key results of the workshop, which will be implemented in the next reference edition:

- Define classes of models and specify guidelines to choose which models should be applied for IERS core products.
- Clarify the definition of the ITRF and its regularized coordinates.
- Implement new models as required for the generation of IERS products (ocean and atmosphere tidal loading, pole tide, tropospheric mapping function ...)

- Reflect the latest Recommendations of scientific Unions and implement conclusions of the Unions working groups and commissions.

The workshop presentations and conclusions may be found at http://www.bipm.org/en/events/iers/iers_documents.html.