Recent developments in Earth rotation theory

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In this presentation we intend to provide an outlook into the activities of the new working group on Theory of the Earth rotation that currently is under consideration as a joint WG of the International Astronomical Union (IAU), Commission 19, with the International Association of Geodesy (IAG). Its purpose is to promote the development of theories of the Earth rotation that be fully consistent and be able to agree with observations and provide predictions of Earth rotation parameters within the requirements of accuracy for the near future, e.g. pursued by the Global Geodetic Observing System (GGOS) .

It will be completed with a survey of recent advances in the theoretical modelling of the Earth rotation, focusing on those obtained by the authors following the Hamiltonian approach.