Earth Rotation Parameters and Ocean Circulation

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The oceanic contribution to Earth Rotation Parameters (ERP) are studied with an ocean model of variable resolution. The model solves the primitive equations and the hydrostatic approximation on a triangular unstructured mesh. It is forced by atmospheric fluxes of heat, momentum (wind-stress) and sea level pressure. Tides can be included. The oceanic ERP are analysed and compared to earlier results with an ocean model of much coarser resolution.

GACE gravity data are used to assess the mass redistribution in the ocean and the contribution to the ERP induced by changes in the inertial tensor.