Abstract View

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The Effects of Loading and Self-Attraction on Global Ocean Tides: The Model and the Results of a Numerical Experiment

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ABSTRACT

The computation of global tides, including the effects of loading and self-attraction, is formulated. A uniqueness theorem for the solution of the differential and associated finite-difference Problem is presented. The results of the calculation of semi-diurnal tides (M_2 wave) are discussed. The effects of loading and self-attraction do not appear to lead to a major alteration of the spatial structure of the phenomenon being studied, but in several regions of the World Ocean significant changes in tidal character are observed.