



## **Evaluation of Absolute Dynamic Ocean Topography Profiles along the Brazilian Coast**

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Based on a new approach, which consistently filters GRACE-based geoid undulations and altimetry-derived sea surface heights along the tracks of altimeter satellites, absolute dynamic ocean topography (DOT) profiles are estimated along the Brazilian coast. Such DOT profiles can be used to perform levelling over the sea. Connecting these profiles with Brazilian Geodetic Tide Gauge Network (RMPG) stations it would be possible to validate the current studies on the modernization of the Brazilian height system, extended over many thousand kilometers on land. The link with coastal reference sites would also allow to connect isolated height systems, e.g. north of the Amazonas River mouth. We perform long-term mean DOT-profiles of cross-calibrated altimeter satellites which operated for many years over repeated ground tracks (TOPEX, Jason-1, ERS-2). Moreover, we analyze the consistency among crossing profiles (single- and dual-satellite) in particular in areas with strong mesoscale currents. The extrapolation of DOT profiles towards selected RMPG stations is investigated. For this connection strategies are considered to overcome the degradation of coastal altimetry due to errors in ocean tide models and the land contamination of the radiometer observations.