

IDS Workshop

PRECISION ORBIT DETERMINATION FOR THE CRYOSAT-2 MISSION

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Abstract

We analyse the accuracy of the Cryosat-2 DORIS-based precise orbits, evaluating performance in terms SLR residuals at all elevations, orbit comparisons between different solutions, orbit overlaps and amplitude of estimated empirical forces. We give details concerning the processing strategies and the adopted models, including satellite specific models for attitude and surface-forces; in particular, we look at the stability of the orbit along the North/South direction which is a crucial aspect in light of the mission objectives and of the recent release of the ITRF2008 reference frame.