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The focus of this presentation will be on the long-term stability of the orbit time series, for mean sea level applications, on a regional scale.

We discuss various issues related to the assessment of radial orbit error trends; in particular the impact of method on the inference of Geographically Correlated Errors is examined as well as the significance of trends vs. the time-span of the analysis. Thus a long-term error budget of the 10-year Jason-1 and ENVISAT GDR-D orbit time series is provided at two time scales: interannual, decadal.

The variations of the geopotential being still one of the primary limitations in the POD, the overall accuracy of the Jason-1 and Jason-2 GDR-D solutions is evaluated through comparisons with external orbits, using different time-variable gravity modeling options.

We will also review orbit errors depending on the tracking technique, aiming at monitoring the long-term stability of all available measurement systems operating on Jason-1 and Jason-2.

OSTS session

Precision Orbit Determination

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