Francois
Boy
CNES
Nicolas Picot, CNES
Jean-Damien Desjonqueres, CNES
Sylvie Labroue, CLS
Thomas Moreau, CLS
Pierre Thibaut, CLS
Oral
In the frame of the Sentinel3 project, CNES is involved in the overall topography payload product quality. Sentinel3 embarks an altimeter including a conventional LRM mode and a SAR mode. The SAR mode propose enhanced performances compared to the conventional mode, thanks to a reduced along track resolution (from 10km to 300m) and a lower measurements noise level. However, while there is a long experience of LRM data processing, SAR nadir looking data are new and will need extensive prototype development and an in depth validation. To contribute to those analysis, CNES took the opportunity of the availability of CRYOSAT-2 SAR data over ocean and started, three years ago, the development of a Cryosat Processing Prototype to generate Level2 product including Sea Level Anomaly and Significant WaveHeigh information from both LRM L1B and SAR FBR products. In the frame of the OSTST, we propose to present a global data quality assessment of SAR data over ocean using one year of SAR data. We will present the cross comparison between SAR and RDSAR (LRM reference built from SAR measurements) SLA and SWH estimates, we will analyze the data quality continuity when the altimeter switches from one mode to the other and we will also detail SLA spectrum analysis. In addition, the SAR processing techniques and the algorithms developed on CNES side will be recalled and the improvements from 2012 OSTST and AGU meetings will be summarized.
OSTS session
Instrument Processing
Meeting name
Ocean Surface Topography Science Team (OSTST) Meeting
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