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Poster
During the last 20 years, altimeter Level 3 (along-track cross-calibrated SLA) and Level 4 products (merging multiple sensors as maps or time series) were developed in parallel with L2 (a.k.a GDR) processing improvements. Directly usable and easier to manipulate, L3/4 products are now vastly used in the user community. They contribute to various studies in different fields that cover the ocean, from climate and meteorological phenomena, to geophysics and biology.
The quality and precision of these products has been periodically improved, taking advantage of new missions with advanced altimeter technology, improved L2 processing, but also from a better understanding of the ocean stemming from the analysis of past records. Moreover, as applications become more and more diversified, L3/L4 products are evolving to better fit users' needs.
A full reprocessing of the 20 years of altimeter data is on going. This reprocessing will take into account all the recent improvements in order to generate a consistent altimeter data set. The altimeter standards will be updated with the more accurate standards available for the different missions. The inter-calibration process, allowing us to reduce the bias between the different missions, will be improved, taking into account the global MSL consistency. An important improvement will be the use of a new reference period, taking into account the 20 years of altimeter data now available. This will lead to more pertinent sea level anomalies, without impact on the absolute topography. Additionally, the mapping process will also be improved, with amongst others, the use of tuned correlation scales and adjusted altimeter errors. Preliminary validation results are encouraging and show improvements at climatic scales as well as mesoscales. The full reprocessed data sets will be available early 2014.
OSTS session
Regional and Global CAL/VAL for Assembling a Climate Data Record
Meeting name
Ocean Surface Topography Science Team (OSTST) Meeting
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