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Poster
A promising emerging application of reprocessed coastal altimetry data is to storm surges. The European Space Agency, recognizing the potential of this technique, has given coastal altimetry a primary role in the Data User Element eSurge Project which aims to improve the modelling and forecasting of storm surges through the increased use of advanced satellite products.

In this contribution we give an update on the latest developments in the eSurge Project and provide details of the coastal altimetry data products generated within the Project from reprocessing Envisat, Cryosat-2 and Jason-2 altimeter echoes. We show examples of how coastal altimetry successfully extends the open ocean measurements to the coastal strip, and then we discuss the possible uses of these measurements in storm surge models, and the experiments planned to demonstrate these uses. The reprocessed data are useful for assimilation, when blended with Tide Gauge data; for verification of model output; and for ensemble pruning. We conclude by illustrating the eSurge-Live initiative for the provision of data in Near Real Time, showing examples of NRT Cryosat-2 data reprocessed by the eSurge processor over the Indian Ocean coast.
OSTS session
Near Real Time Products and Applications and Multi-Mission, Multi-Sensor Observations
Meeting name
Ocean Surface Topography Science Team (OSTST) Meeting
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