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The PISTACH product: altimeter data for coastal ocean

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Near the coasts, satellite altimeter techniques are unfortunately limited by a growth of their error budget. This quality loss is due on one hand to the land contamination in the altimetric and the radiometric footprints until respectively 10km and 50km and on the other hand to inaccurate geophysical corrections (tides, high-frequency processes forced by atmospheric forcing). In order to recover these data close to the coast that may contain useful information for coastal studies, the French Spatial Agency (CNES) funded the development of the PISTACH prototype dedicated to Jason-2 altimeter processing in coastal ocean. Since November 2008, the PISTACH products have been providing new retracking solutions, several state-of-the-arts, or with higher resolution, corrections in addition to standard fields at a high-level sampling rate ($\sim$300m).

Newly, in order to ease the use of these products, the PISTACH team has developed an adapted data post-processing (editing, filtering) and produced PISTACH Sea Level Anomaly (SLA) datasets along several tracks that cross the Agulhas Current, the Florida Current and the Gulf Stream.

This presentation will give an overview of the final PISTACH datasets produced over these coastal areas. Some steps of the PISTACH processing will be detailed but mostly concrete results for coastal ocean studies, drawn from comparison with external datasets (in-situ velocities, in-situ coastal stations and satellite SAR velocities), will be exhibited