

PREBIOSWOT cruise

SPASSO Images Analysis

26/04/2018 15:02 UTC

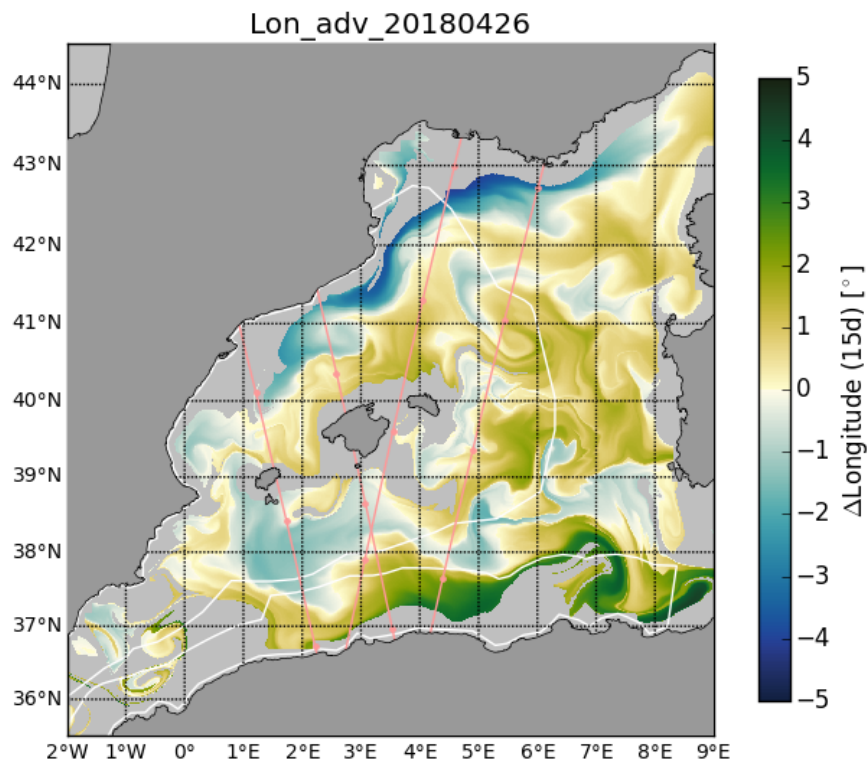
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Executive Summary

This is the 1st bulletin of the cruise series.

The cruise preparation meeting is scheduled on board on April 27 (tomorrow). The cruise is scheduled to start on April 30, 2018.

The Chl images are cloudy. The FSLE and the Lon_adv and Lat_adv figures show the same east-west zonal shear with the Northern part coming from North and the Southern part coming from East. We would recommend to go to the corresponding area: between 38 and 39°N and between 1.9 and 3°E .

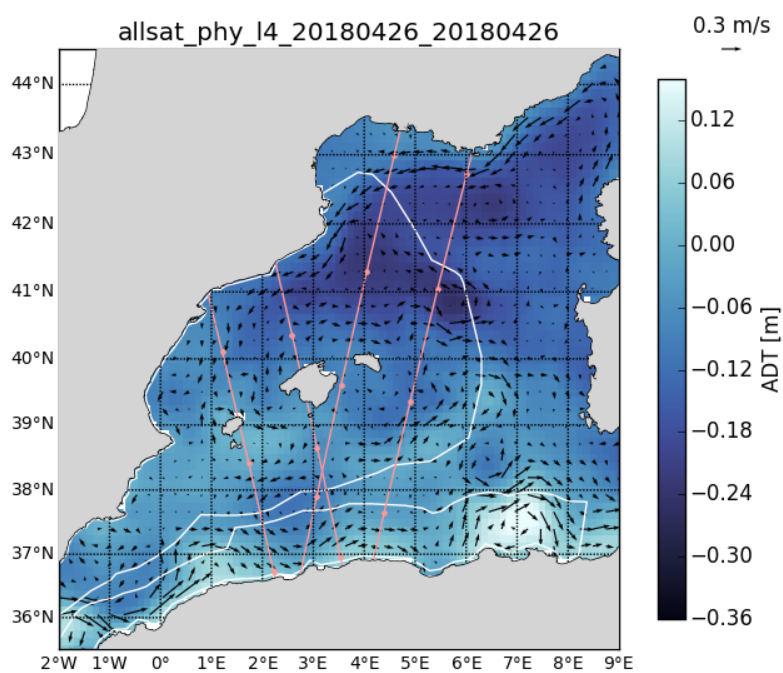


1 Ongoing operations and upcoming stations

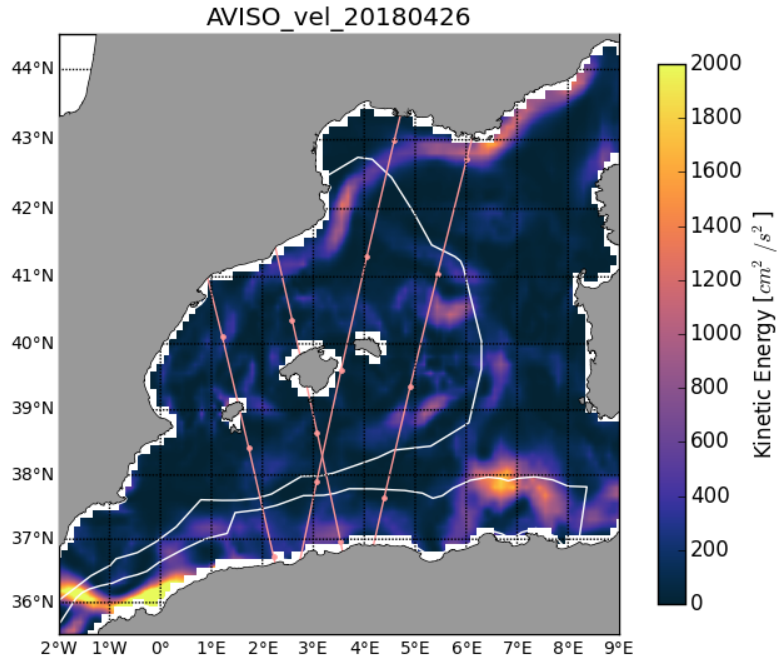
This is the first bulletin of the cruise series. The beginning of the cruise is scheduled for April 30, 2018.

2 Daily figures analysis

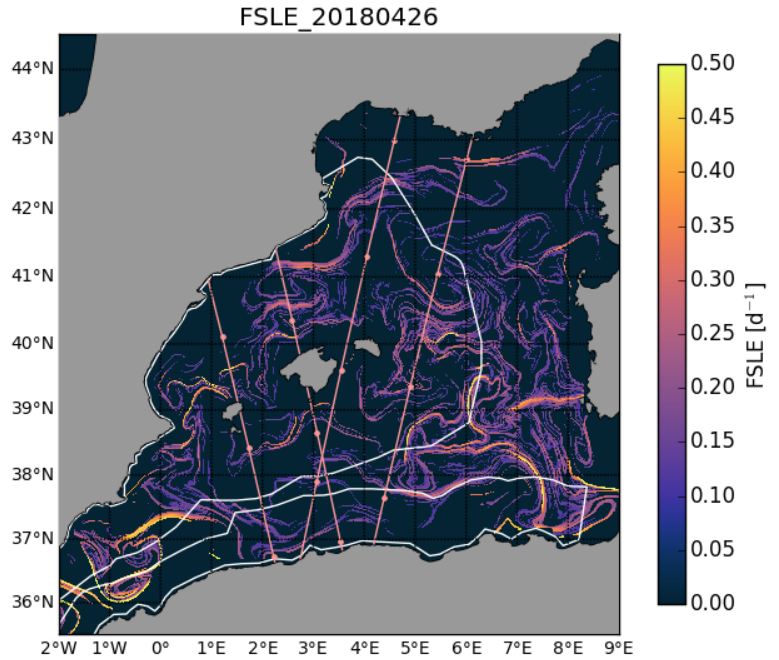
2.1 Altimetry, derived currents and Lagrangian analysis



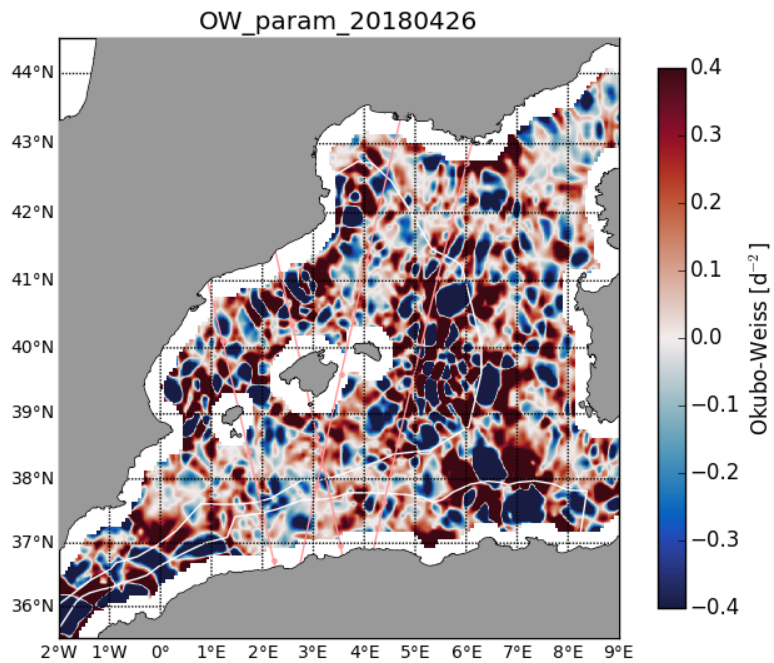
The SWOT area is very calm.



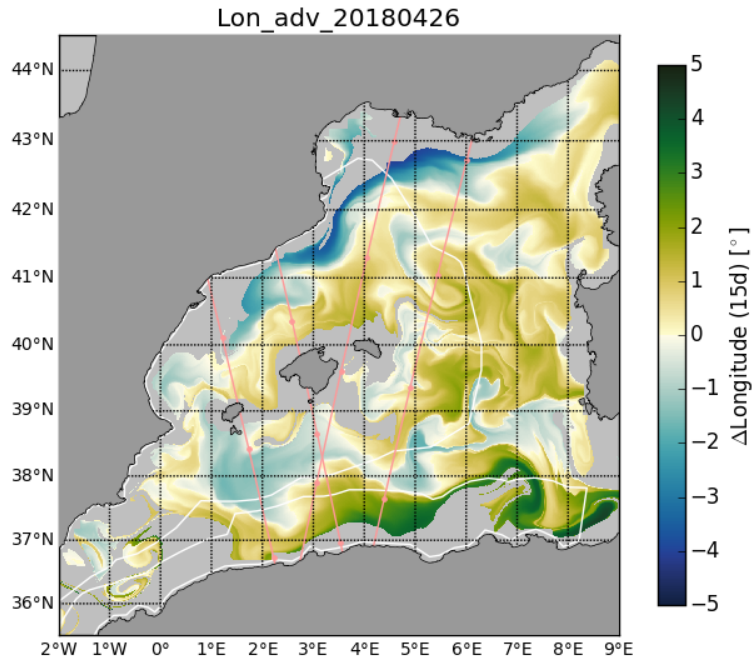
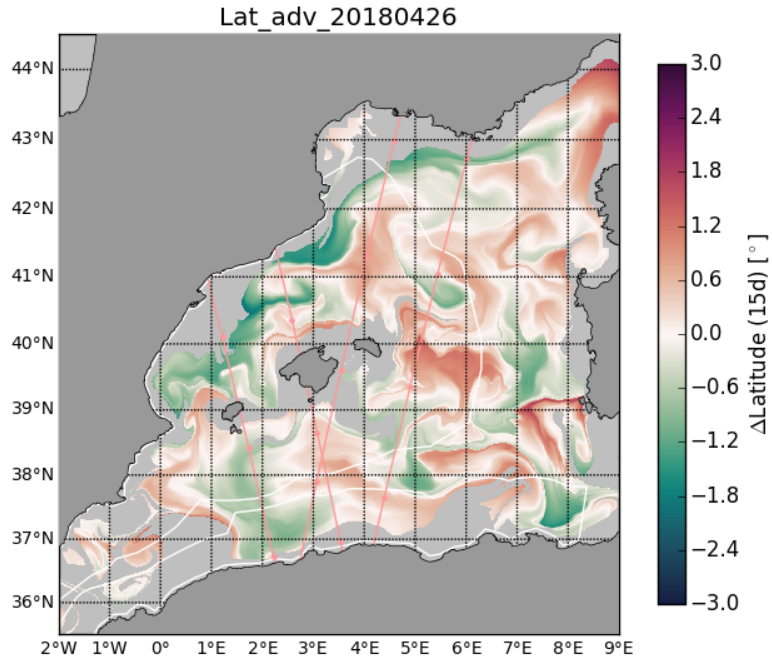
The previously mentioned high velocity structure is still located East of the SWOT transect.



Southwest of Majorqua, the interesting FSLE structure stretching in an oblique direction SW-NE (38 and 39°N and between 2 and 3°E) mentioned in the last bulletin is still there.



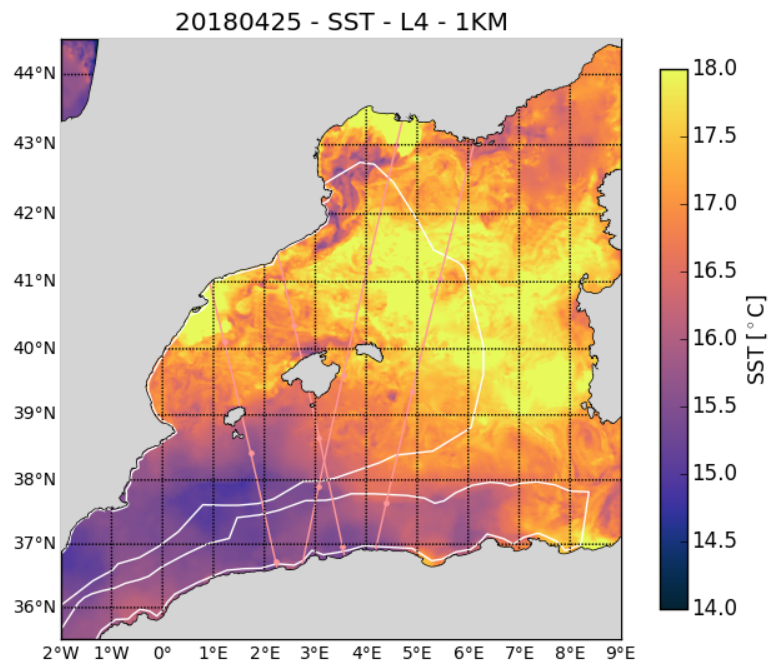
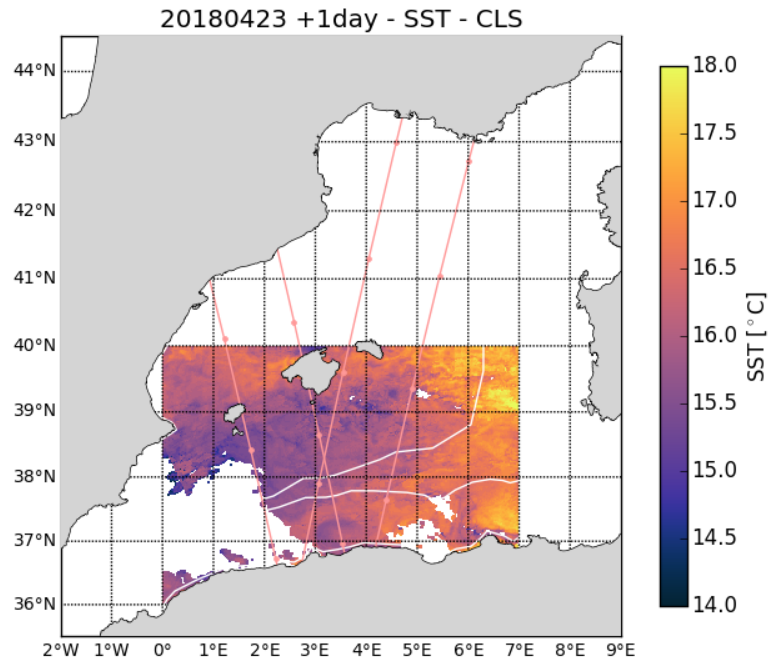
The OW figure shows weak activity in the SWOT area.



The Lat_adv and Lon_adv images agree with the FSLE structure. These images show that the waters north of the FSLE structure seem to have coastal origins, originating either from Majorqua or Ibiza, potentially leading to interesting enrichment with maybe biogeochemical and biological implications. The waters south of the FSLE structure are coming from East.

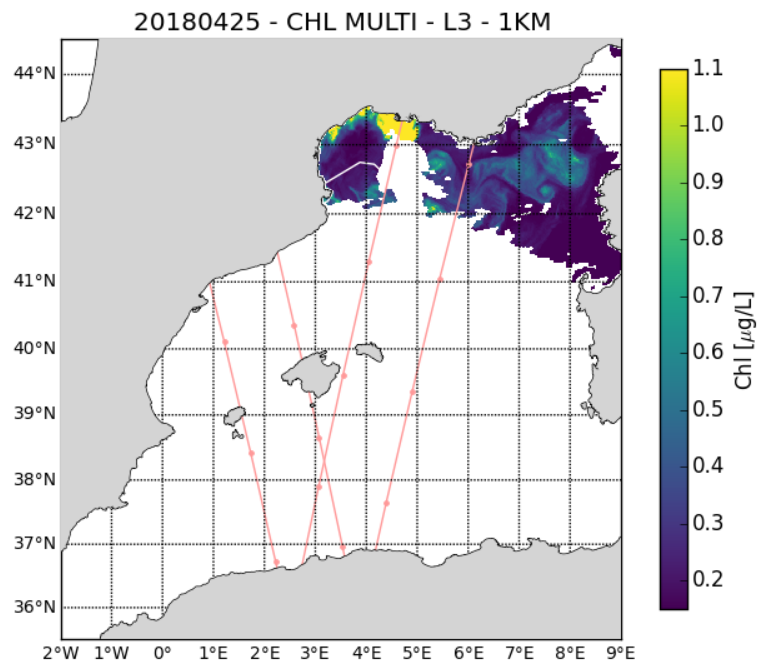
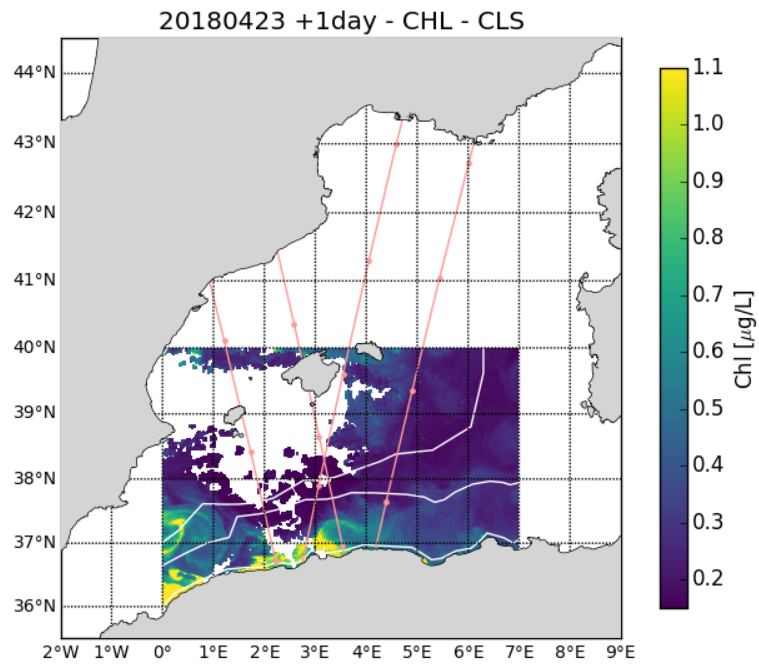
The figures are going in the same direction, leading to a recommended area: 38 and 39°N and between 1.9 and 3°E .

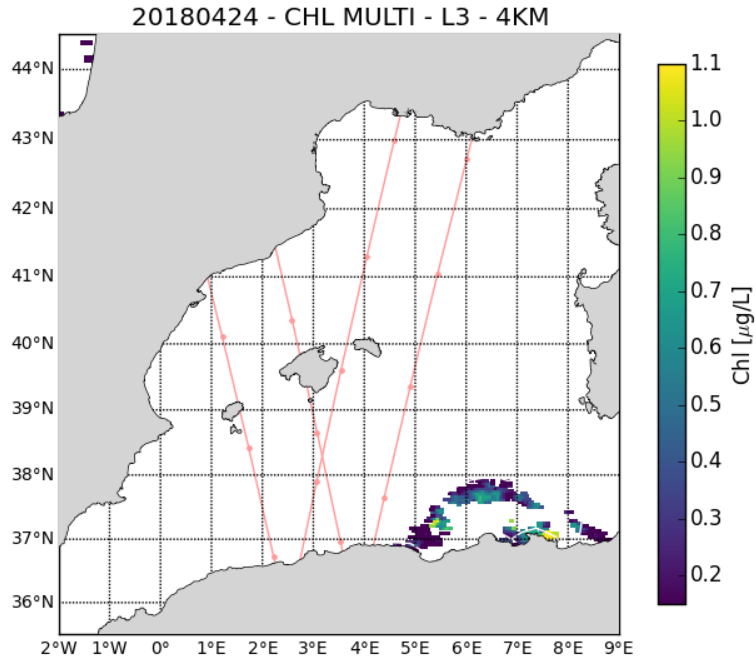
2.2 SST analysis



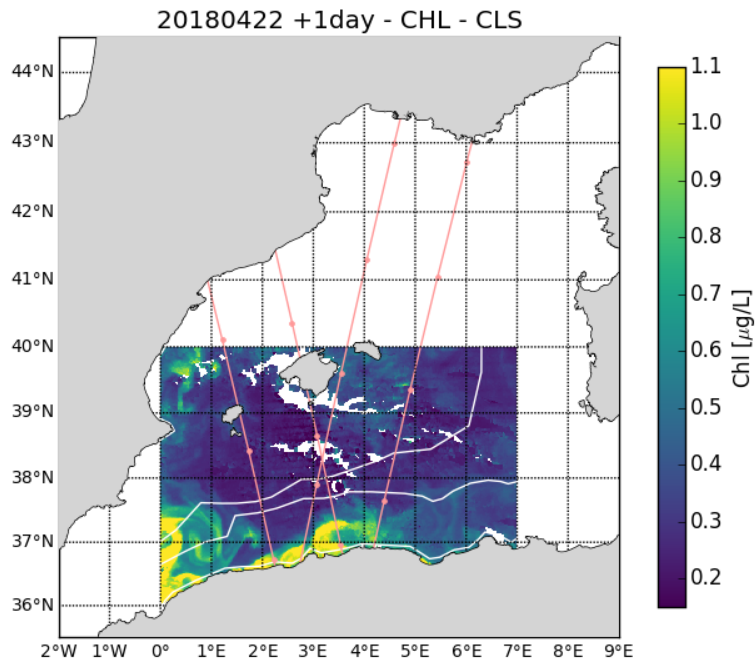
The Southern part is cooler than the Northern one. The scale has been changed to [14;18]° to adjust to the current warming of the area.

2.3 Chlorophyll analysis





Unfortunately all the Chl figures are cloudy in the region of interest. Nothing can be concluded from them today. The last clear Chl figure is from the 23rd of April (shown below) and show some Chl diffuse activity in the area 38.5 and 39°N and between 3 and 4.5°E .



Acknowledgements

The altimetry data are the AVISO Mediterranean regional product:

<http://www.aviso.altimetry.fr/index.php?id=1275>.

The derived currents are processed by SPASSO to derive Eulerian and Lagrangian diagnostics of ocean circulation: OkuboWeiss parameter, particle retention time and advection, Lagrangian Coherent Structures. CLS provided the SST and surface CHL concentration composite products. Sea surface temperature (level 3 and 4, 1 km resolution) and chlorophyll concentration (level 3, 1km resolution, MODISAqua and NPPVIIRS sensors combined (after May 27, 2017) into a new product called MULTI) have been provided by CMEMS Copernicus Marine Environment Monitoring Service (<http://marine.copernicus.eu>). Another SST product (level 4, composite, 1 km resolution) is provided by the Jet Propulsion Laboratory (JPL), Pasadena, CA.

PREBIOSWOT project webpages

(à définir)

SPASSO PREBIOSWOT webpages

<http://www.mio.univ-amu.fr/SPASSO/PREBIOSWOT/>