

## **The dynamics off Toulon explored from various datasets**

V. Garnier, A. Ponte, M. Demol, P. Garreau (Ifremer, LOPS), C. Estournel (LEGOS), J. Beuvier (CNRM)

### **Abstract**

Numerical models, in situ and satellite observations are complementary. And the launch of the SWOT mission has provided to collect unprecedented 2D high-resolution observations of the sea surface height. During the fast-sampling period, the region off the coast of Toulon was sampled every day.

This is an opportunity to review how the different dynamical processes at play are revealed depending on the type of measurement. For instance, upwellings and the mesoscale activity can be observed from different satellite sensors: ocean color in spring and temperature in summer, with some uncertainty due to cloud cover. The 2D SWOT observations should make it possible to capture these characteristics throughout the year.

The study aims at describing the dynamics present under the swath 003 of the SWOT fast-sampling period, from seasonal to intermittent events.

After a synthetic description of the processes simulated by different long-term numerical ocean models and from in situ measurements, the analyses examine SWOT's ability to observe processes and how it compares with or complements other information.