

EGU21-5955

<https://doi.org/10.5194/egusphere-egu21-5955>

EGU General Assembly 2021

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



## Characterizing an anticyclone in Western Mediterranean Sea using altimetric data and an eddy tracker

**Cécile Pujol**, Aida Alvera-Azcárate, Charles Troupin, Alexander Barth, and Hugo Romanelli

University of Liège, GHER, Oceanography, Liège, Belgium (cecile.pujol60@gmail.com)

In April 2019, a large anticyclonic Eddy has formed in Western Mediterranean Sea between Sardinia and Balearic Islands. This anticyclone was observable with Sentinel-3 SST satellite data for 7 months and its diameter was estimated to 150 km. Although mesoscale anticyclones are quite common in this part of the Mediterranean Sea, such large and long-live eddies remain exceptional and repercussions for ocean-atmospheric exchanges and for biodiversity might be consequent. However, due to the increase of temperatures during summer, the satellite SST track of the eddy has been lost during a few weeks in August and September. Indeed, the SST signature of the eddy was not distinguishable from surrounding waters anymore. In order to track the eddy during its entire life and have a better understanding of its characteristics, sea level anomaly derived from altimetric data will be analysed in this study with the Py Eddy Tracker toolbox to investigate the variation of its position, its altimetry and its size. The distribution of other remarkable eddies in this zone and period will also be considered. Moreover, a high-resolution SST field will be reconstructed with DINEOF method so the comparison between eddy's SST and altimetric characteristics will be assured.