



Deep Chlorophyll Maximum distribution in the Alboran sea and its relationship with mesoscale and frontal features through synchronous glider observations.

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May 25 2014, two gliders were launched in the framework of the multiplatform and multidisciplinary experiment in the Alboran sea named ALBOREX (a PERSEUS project sampling) and of the JERICO TNA FRIPP project. The two instruments glided for 6 days, during which ADCP, ship based CTD, ARGO floats and surface drifters also sampled surface to deep waters allowing, together with bottle water samples, to collect a comprehensive dataset of oceanographic multidisciplinary quasi-synoptic data at (sub-)mesoscale.

This preliminary work presents the results related to the two glider launched at approximately 20 km each other. The two gliders intercepted in their pathway a frontal structure belonging to the northern margin of a quite large and strong anticyclonic structure originating by the meandering of Atlantic Waters entering in Mediterranean through Gibraltar. The vertical structure of Chlorophyll-a (as derived by fluorimeter measurements) shows the area of subsidence across the front and the deepening of isolines in the eddy interior. The analysis of the relatively low-cost glider data, combined with synoptic satellite measurements, shed light on the dynamics determining the re-distribution of the phytoplanktonic biomass and provide precious hints, combined with dissolved oxygen data also collected by the unmanned autonomous vehicles, about the influence of such dynamical features on Primary Production.