



## **Recent changes in thermohaline properties of Mediterranean Outflow Water in the Gulf of Cadiz.**

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Since 2009 the Cadiz Center of the Spanish Institute of Oceanography (IEO) has been sampling the eastern Gulf of Cadiz along three standard hydrographic sections perpendicular to the coast as a part of the Gulf of Cadiz Ocean Time-Series Study (GoCATS). These sections were conducted three times per year although from 2014 the scheme includes at least one occupation per season.

This paper uses full-depth CTD taken at an offshore station situated at  $36^{\circ} 8.52'N$   $6^{\circ}43.52'W$  and at 620 m depth. Below the surface layer, seasonal variability is evident in the thermohaline properties of the water column, especially at the Mediterranean Outflow Water (MOW) level. To further analyze the thermohaline variability thermohaline changes at isobaric levels (isobaric change) were decomposed in vertical displacement of the isopycnals (heave) and changes along isopycnals (isopycnal change) following the method by Bindoff and McDougall (1994).

Preliminary results reveal from 2009-2011 a decrease of salinity at isopycnal levels corresponding to the MOW layer, mainly caused by heave. Salinification has occurred since 2011 caused by a combination of both isopycnal change and heave.