



## **Study of the relationship between atmospheric pressure fluctuations over the Mediterranean Sea and the generation of internal waves in the Strait of Gibraltar.**

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The Strait of Gibraltar is well-known by the generation of high amplitude internal waves ( $\sim 100$  m) due to the interaction of the tidal flow with the principal Sill: Camarinal Sill. Previous studies have shown that the atmospheric pressures fluctuations over the Mediterranean Sea are well correlated with the variations of subinertial flows through the Strait reaching up to 0.5 m/s. These subinertial flows, added to the tidal one, modify the total flow through the Strait and, therefore, the processes of generation of internal waves in Camarinal Sill can be altered. In the present research we analyze, on one hand, the current velocity data from a record of ADCP moored in Camarinal Sill during 1994-1996 and simultaneous series of temperature and salinity from SEACATs moored in the same position. On other hand, time series of atmospheric pressure over the Mediterranean Sea from data base of European Centre for Medium-Range Weather Forecasts have been analyzed in order to find the possible relationship between atmospheric pressure in the Mediterranean Sea and the internal processes in the Strait.