Hydrography and circulation of the Ionian Sea (1988-1991)

A. MICHELATO, V. KOVACEVIC, B. MANCA, P. SCARAZZATO and D. VIEZZOLI

Osservatorio Geofisico Sperimentale, TRIESTE (Italia)

CTD data collected during the POEM cruises carried out from 1988 to 1991 were submitted to objective analysis for an optimal estimation of the Ionian Sea hydrography and circulation. The distribution of the main water masses in the area (Atlantic Water, Levantine Intermediate Water and Adriatic Deep Water) was examined in relation to the sub-basin circulation features and to different seasons. Horizontal and vertical structure of the analysed fields has revealed a population of anticyclonic and cyclonic eddies interconnected by meandering jets and currents in the upper thermocline. Dynamic processes were generally weaker in the lower layers. Significant variabilities in the principal modes of circulation were however evidenced and are here discussed.