



Observation and modeling of the space water structure in the South-East Baltic

M. Golenko, N. Golenko

Atlantic Branch of P.P.Shirshov Institute of Oceanology RF Academy of Sciences; Mira str. 1, 236000, Kaliningrad, Russian Federation (golenko@ioran.baltnet.ru)

Features of the space structure of thermohaline fields in the South-East Baltic related to upwelling events and thermohaline fronts are considered. In this region, the extensive array of field data is collected and at the same time numerical modeling for different seasons and atmospheric forcing was carried out.

Features of the upwelling observed in the South-East Baltic in October 2005 are analyzed in details. On the base of local 3D numerical model it was succeeded in a description of upwelling structure and temperature decreasing in the upwelling core. Spreading of the core and its shift into sea shore direction were observed in the after upwelling period

Processes of coastal fronts formation in cold and warm seasons are considered. The gradient areas arising in warm season are primary related to upwelling events. In cold season the frontal zones are formed primary owing to intensive cooling of coastal relatively shallow regions.