



## **Mean circulation and mass transport in the south Baltic.**

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Model is based on Bryan-Cox-Semtner model with horizontal resolution of about 9km ( $1/12^\circ$ ) and 21 vertical levels. It consist of regional adaptation of the Parallel Ocean Program (POP) developed at the Los Alamos National Laboratory coupled to a parallel version of the original Hibler dynamic-thermodynamic model with a viscous-plastic rheology. The model was forced using daily averaged reanalyzed data of atmospheric forcing derived from European Centre for Medium-range Weather Forecast (ECMWF). The poster shows details of simulation strategies and discusses the results especially water circulation, heat and water transport in the Baltic sea. A 9-year integration using the 1979-1981 realistic forcing repeated 3 times was treated as a spin-up. Results from the 22-years period ( 1979-2000) are presented. There were analyzed mean kinetic energy of Baltic sea showing reasonable response of the model to the atmosphere forcing. Results were compared to in situ measurements done by Institute of Oceanology Polish Academy of Sciences. The characteristic hydrographic features of the Baltic Sea were simulated quite well. The computations ware performed using Cray T3E and Cray X1.