METHOD OF DATAFILTRATION FOR INVESTIGATION OF COASTALLY TRAPPED WAVES STRUCTURES

KOCHERGIN S. V and JANKOVSKY A. E

[1] Ukrainian Academy of Sciences, Marine Hydrophysicla Institute, 2, Kapitanskaya Str., Sevastopol 33500 Crimea, Ukraine

Results of local experiment in Crimea shelf zone is considered. Modal structure of coastally trapped waves is examined. For amplitude of modes the system of linear equations is solving. Quantity of modes is less than quantity of stations. New method of filtrating is used. It is based on plane rotation of our system, minimization of any quadratic functional and sorting of new equation by its informatable. Due to this procedure level of noise in initial system is decreased. *A priori* information about dispersion of mistakes and maximum of mode's amplitudes are used. This method gives a possibility to use all information in solving of this incorrect mathematical problem and may be useful for solving of similar problems, in which modal structure of oceanography fields are used.

ENERGETICS-STATISTICS OF THE MEDITERRANEAN GENERAL CIRCULATION

G. KORRES[1], N. PINARDI[2], A. LASCARATOS[1]

[1] University of Athens, Greece
[2] IMGA–CNR, Modena, Italy

Energetical (volume averaged kinetic energy and available potential energy equations) and statistical analysis (3D EOF analysis) is applied to the global Mediterranean MERMAIDS GCM in order to understand the energy interactions (conversion between kinetic and available potential energy), the role played by each driving mechanism separataly (wind, heat fluxes, dissipative terms) and to extract the simulated space and time scales of variability occuring in the Mediterranean general circulation. Two model experiments (integrations) have been analyzed. In the first experiment (central) the model is drived using realistic monthly forcing (wind – heat fluxes) for the period 1980–1988 (NMC 1000mb analysis). Heat fluxes are calculated interactively by the model due to a sophisticated parameterization scheme. In the second experiment the wind forcing is kept constant to its annual average and only the heat fluxes vary interannually. The results of the central experiment have shown that the interannual variability of the basin has an event–like character followed by transition periods where anticyclonic features are mostly excited in the southern sector of the basin. The shape of variability centers is mainly gyre–like. Two major events have been identified occuring during the winters of 1981 and 1986 which are characterized by strong wind (mainly) and heat forcing. The mixed layer undergoes seasonal variations while the interannual signal (1981 and 1986 anomalies) is strong at the depth of the thermocline. Finally we discuss some topics concering the "memory" of the dynamical system which have been proved through our model experiments to be on the seasonal time scale (winter ocean conditions control the following summer behaviour).

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