NUMERICAL MODELING OF CONVECTION IN THE ATMOSPHERE AND WATER

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A mathematical model for the direct description of convective structures in the atmosphere and water basin (LES-modeling) with cooling the interface surface is presented. The problem is formulated on the basis of hydrodynamics equation with separation of intermediate currents and convective pulsations. Boundary conditions on the surface provide splicing of heat fluxes, impulse and turbulence enregy. A scheme of energy balance in the "atmosphere-water basin" system has been constructed. The result of numerical integration of the problem obtained with the use the 2D model.