**Numerical experiments on salt finger type convection**[1] SATOKO
KOMURASAKI, Nihon University, KUNIO KUWAHARA, Institute of Computational Fluid Dynamics — Salt finger type convection is formed where hot, salty water overlying colder, less salty water. In the ocean, solar radiation may warm the surface layer of the sea but this may also give a high evaporation rate increasing the salt concentration. Therefore, salt fingers are often observed undersea. Double diffusive convection of salt finger type has been studied experimentally and numerically very much. However, some interesting problems remain. In the last our numerical study of salt finger type convection, it was simulated two dimensionally that under a condition, a large convective flow occurs which mixes fluid, and forms an uniform layer. In this study, we try to simulate this phenomenon three dimensionally, and carry out salt finger type convection under other conditions. In the computation, the governing incompressible Navier-Stokes equations are solved by the multidirectional finite-difference method. For high-Reynolds-number flows, the third-order upwind scheme is utilized for the convective terms to stabilize the computation. Results of the computation are visualized extensively.

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