

On Regional Climate Singularity: On Example of the Territory of Georgia

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Abstract : In this paper, some results of numerical simulation of the air flow dynamics in the troposphere over the Caucasus Mountains taking place in conditions of nonstationarity of large-scale undisturbed background flow are presented. Main features of the atmospheric currents changeability while air masses are transferred from the Black Sea to the land's surface had been investigated. In addition, the effects of thermal and advective-dynamic factors of atmosphere on the changes of the West Georgian climate have been studied. It was shown that non-proportional warming of the Black Sea and Colkhi lowland provokes the intensive strengthening of circulation and effect of climate cooling in the western Georgia.

Keywords : regional climate, numerical simulation, local circulation, orographic effect

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