RESEARCH ON CLIMATE ELEMENTS' FLUCTUATIONS IN THE WESTERN AND CENTRAL CAUCASUS BY MATHEMATICAL STATISTICS METHODS

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The methods of mathematical statistics were used in constructing a scheme for calculating the dynamics of climate parameters to solve the problems of natural hazards energization. Climate parameters are calculated on the basis of processing the results of long-term instrumental measurements of atmospheric characteristics at weather stations. The modelling of trends in dynamic series and the study of the stability of trends were carried out by regression and rank correlation methods. The dynamics of such climate elements as atmospheric pressure, water vapour elasticity, surface air temperature, and the amount of precipitation in the mountain zone of the Karachay-Cherkess and Kabardino-Balkarian Republics is studied.

Keywords: mathematical and statistical modelling, tendency stability, natural hazards, dynamics of climatic parameters.

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