MATHEMATICAL MODELS AND CRITERIA FOR WATER DISTRIBUTION QUALITY IN LARGE MAIN IRRIGATION CANALS

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ABSTRACT

In the article it's mentioned that mathematical models of water distribution in channels of irrigation systems under discrete water supply conditions have been developed. These include the models of direct and kinematical waves, diffusive & convectional model, and complete model of unsteady water flow in channel sections. Also, the criteria of quality of water distribution in the channel sections, for lateral water intakes and pumping stations have been defined. For them, discrete conditions, initial and border conditions, scopes of variables and limitations on the water distribution process in channels have been determined.