

## Abstract

*In the paper we attempt to create mathematical model by using data on seasonal variability of resultant heat exchange structure between reservoir and atmosphere, dependencies of heat flows at the expense of evaporation and convection from stability of water layer of the atmosphere. Necessity of account of seasonal properties of heat exchange at calculations and prediction of heat mode of reservoirs specially in the transitive periods (spring-autumn) is shown. It is established that account of heat flows should be fulfilled allowing for their contribution to the resultant heat exchange in deferent seasons. In heating period the increase of accuracy of heat exchange determination may be achieved at the expense of non-stationary property of radiative heat-exchange processes.*