DOI: https://doi.org/10.37162/2618-9631-2024-3-77-89

Applicability of spline approximation in recovering the initial water temperature field in the problem of forecasting the Caspian Sea ice thickness / Pressman D.Ya. // Hydrometeorological Research and Forecasting, 2024, no. 3 (393), pp. 77-89.

The method of crude approximation of an initial profile of temperature of seawater and the underlying ground layer from the data on 10 m wind speed, atmosphere bottom temperature and pressure, ice thickness, ground type, and long-term temperature at the bottom of the distinguished ground layer is considered. An example of applying such profile as initial in 3-day forecasting of the sea ice thickness is presented. Throughout the entire forecast period, the values of 2 m air temperature, 10 m wind speed, and surface pressure and radiation fluxes must be specified.

Keywords: spline interpolation, convective and wind-induced mixing, difference approximation, heat conductivity equation, dynamical velocity, point of heat flux jump

Fig. 7. Ref. 8.