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An automated system has been developed based on the hydrograph extrapolation method, which allows the year-round daily forecasting of water level and streamflow for the Russian rivers with up to 10-day lead time.

The forecast of discharges or water levels is expressed by a linear formula depending on their values on the date of the forecast issue and five previous days. The forecasting scheme limits the possible minimum and maximum values of the discharge or water level based on historical data.

Forecast schemes were obtained for 2776 river gauges. The time period from 2010 to 2019 with daily observations of discharge and water level was used. The forecast verification shows that this method can be successfully applied to large rivers with smooth hydrographs.

Keywords: daily discharge and water levels, short- and medium-term forecasts, hydrograph extrapolation method, forecast verification, maximum lead time of satisfactory forecasts, self-learning of an automated system for preparing and issuing forecasts

Tab. 6. Fig. 5. Ref. 15.