



## **Variations of hydrological characteristics at the rivers of different size in the Lena river basin**

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There are many speculations about possible impact of climate change at hydrological regime of Northern Eurasia, and permafrost basins in particular. Though the changes of flow of large rivers are relatively well described, the trends for small and middle-size watersheds are unknown. After the papers by Shiklomanov et al. (2007) and Smith et al. (2007) examining the variations of maximum and minimum flow in Northern Russia by 2001 there was no much update in this issue.

In this study we compiled the database of continuous daily runoff for about 110 gauges within the Lena River basin with the order of basin area from 10 to 100000 sq.km. All currently functioning flow gauges with continuous observations not less than 35 years were selected for the database which contains the data up to 2013.

For chosen gauges the parameters of row-correlation, cyclic recurrence and the stationarity of main runoff characteristics (mean, maximum and minimum flow) were estimated. The conclusions are drawn about the evidence of unsteadiness and/or internal correlation in runoff series; the robust indicators of the intensity of detected changes are evaluated; the duration of water cycles and evaluation the spatial correlation between water cycles are explored.

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