Geophysical Research Abstracts
Vol. 19, EGU2017-8329, 2017
EGU General Assembly 2017

Recent advances in the multimodel hydrologic ensemble forecasting using the HydroProg system in the Nysa Klodzka river basin (southwestern Poland)

Tomasz Niedzielski, Bartlomiej Mizinski, and Malgorzata Swierczynska-Chlasciak
University of Wroclaw, Wroclaw, Poland (tomasz.niedzielski@uwr.edu.pl)

The HydroProg system, the real-time multimodel hydrologic ensemble system elaborated at the University of Wroclaw (Poland) in frame of the research grant no. 2011/01/D/ST10/04171 financed by National Science Centre of Poland, has been experimentally launched in 2013 in the Nysa Klodzka river basin (southwestern Poland). Since that time the system has been working operationally to provide water level predictions in real time. At present, depending on a hydrologic gauge, up to eight hydrologic models are run. They are data- and physically-based solutions, with the majority of them being the data-based ones. The paper aims to report on the performance of the implementation of the HydroProg system for the basin in question. We focus on several high flows episodes and discuss the skills of the individual models in forecasting them. In addition, we present the performance of the multimodel ensemble solution. We also introduce a new prognosis which is determined in the following way: for a given lead time we select the most skillful prediction (from the set of all individual models running at a given gauge and their multimodel ensemble) using the performance statistics computed operationally in real time as a function of lead time.