Flood Wave Detection and Representation in Time Series Data

Marcell Dabis, Zsolt Vizi

University of Szeged, Szeged, Hungary

In this talk we will consider a flood wave as consecutive peaking in water levels alongside the measuring points of the river. This implies that we need to check the data of the measuring points sorted by river kilometer, and look for peaks that are close to each other geologically and in time as well. From the flood wave's propagation time, and overall length, we can derive useful statistics for river control.

In this work a graph representation of the flood wave's propagation will be presented. We will cover the problems/topics of the pattern of a flood wave and also the merging of flood waves. This research is the part of the currently ongoing cooperation between the Bolyai Institute and the water directorate of Szeged (ATIVIZIG).

Keywords: pattern recognition, flood wave, depth-first search, graph representation