



XL

International School of Hydraulics

23 - 26 May 2023 • Kąty Rybackie • Poland

# Aerial images for assessing vegetation coverage in open channels

*Emilia Karamuz and Monika Kalinowska*

*Department of Hydrology and Hydrodynamics,  
Institute of Geophysics Polish Academy of Sciences, Warsaw, Poland  
emails: [emikar@igf.edu.pl](mailto:emikar@igf.edu.pl), [mkalinow@igf.edu.pl](mailto:mkalinow@igf.edu.pl)*



**Institute of Geophysics  
Polish Academy of Sciences**

Focusing on the Warszawicki Channel's agricultural ditch (Poland), we used UAV-based imagery to monitor riverine vegetation dynamics during the growing season.

**The study aimed to determine surficial vegetation coverage at different stages of growth for selected parts of the surveyed reach.**

We use DJI Phantom 4 drone instrumented with an RGB camera for image collection to fulfil our goal.

Our results can be used in further analysis to study the influence of natural vegetation on flow hydraulics and to determine the empirical relationship between flow conditions and the degree of natural vegetation cover.

