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**Block ramps (BR) made of natural stones and rapid hydraulic structures (RHS) of Peterka type: stone dimension calculations, a comparative study**

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**ABSTRACT**

The paper presents results of hydraulic modelling of block ramps (BR) made of natural stones (seven constructional solutions) and compares them with the results of classical research by Peterka. The main aim of the paper is to provide a simplified solution to determining the dimension of stones fixed to the sloping apron of the BR in order to reduce energy of flowing water along the ramp. This new way of assessing the dimensions of stones along BR sloping apron is presented with proposals on how to calculate stone dimension. The paper is dedicated to hydraulics engineers, scientists, designers, practitioners and also to researchers in the field of low-head hydraulic structures.