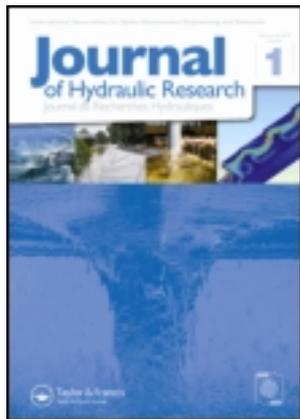


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Closure to "Propagation of Surge Waves in Channels with Large-Scale Bank Roughness" by T. Meile, J-L. Boillat and A. J. Schleiss, *J. Hydraulic Res.* 51(2), 195-202.

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Closure to “Propagation of surge waves in channels with large-scale bank roughness” by TOBIAS MEILE, JEAN-LOUIS BOILLAT and ANTON J. SCHLEISS, *J. Hydraulic Res.* 51(2), 2013, 195–202.

TOBIAS MEILE, JEAN-LOUIS BOILLAT
and ANTON J. SCHLEISS

The authors thank the discussor for his interest in our work and the complementary information on the behaviour of undular surges in a channel with a local rapid constriction and expansion.

The purpose of the fundamental research by the authors was to study systematically the influence of longitudinal, uniformly distributed large-scale bank roughness, on the propagation speed and the height of the surge wave front. The study was motivated by the practical question if such morphological measures in the framework of river revitalization as lateral cavities at the banks can increase the flow resistance and the natural retention capacity of the rivers, in such a way that the ecological harmful effects of hydropeaking are attenuated. Thus, as mentioned, the study focused on the overall-effect of longitudinal, uniformly distributed large-scale bank roughness, and on surges as they occur during hydropeaking in rivers downstream of hydropower plant outfalls.

The discussor describes the effect of local transitions in the channel geometry (pertaining thus to local head losses rather than continuous along the channel), like a rapid constriction and expansion as they could occur at channel constrictions resulting from bridge abutments and piers, which was not the main focus of the author’s research. Nevertheless, the authors have also observed similar flow features as the discussor, when the positive surge passes an abrupt expansion.

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