



Experimental study of the propagation of granulometric patches in rivers

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River beds usually exhibit granulometric patches. Previous studies focused on the patches characterization (size, spatial organization, grain sizes distribution) and the links between these characteristics and the sediment transport rate in rivers. However, few studies have attempted to quantify the time evolution of patches as a results of flow and granulometric conditions. Here we report an experimental investigation focusing on the propagation of patches. The experiments are performed in a flume of length 240 cm and width $W = 9.6$ cm. The flume is initially filled with a sediment bed separated in two parts : an upstream part made of large grains (diameter=2.2mm) and a downstream part made of small grains (diameter=0.7mm). Using image analysis, we document the propagation of the boundary of the large grains at rest on the bed.