

## ***Interactive comment on “Clast imbrications in coarse-grained sediments suggest changes from upper to lower flow regime conditions” by Fritz Schlunegger and Philippos Garefalakis***

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We greatly appreciate the comments by P. Carling, which we will certainly consider upon revising our paper. We fully agree with P. Carling that the occurrence of subcritical or supercritical flow hinges on the  $\varphi$ - and slope values, and that the latter might change over shorter distances than the mean energy gradient we have employed in our paper. We also agree that this adds a bias in our paper since, as the reviewer correctly states, such inequalities between slope and energy gradients increase when unsteady and non-uniform flows and transitions are considered. We bring this point up in the revised manuscript. We justify our simplification because we are mainly interested in exploring

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whether or not supercritical flows are likely to occur for particular  $\varphi$ - and gradient-values. This point will be discussed in a new section in the revised manuscript (lines 545-557 of the revised manuscript).

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