

Interactive comment on “Effects of Y-type spillway lateral contraction ratios on debris flow patterns and scour features behind a check dam” by Huayong Chen et al.

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1. In the experiments, the size of the model is much smaller than in the reality, which leads to much smaller stress in the debris flow and check dam. How would the results change for large scaled models? Please add some discussions. Answer:thanks very much for the reviewer’s comment. Some discussions were added in the revised manuscript (in lines 203-205, page 10;212-213, page 11). 2. Page 8 line 151 The mean value of the energy dissipation rate demonstrated a good, positive correlation between the energy dissipation rate and the lateral contraction ratio. Do you mean: The mean value of the energy dissipation rate demonstrated a good positive correlation with the lateral contraction ratio? Answer:the wrong sentence has been revised

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as” The mean value of the energy dissipation rate demonstrated a good positive correlation with the lateral contraction ratio”(in line 157, Page 8). 3. Page 9 line 178 The absolute error was smaller than 15.0% in most cases, as shown in Figure 11 . What means in most cases, how many percent? Answer:the exact value was given in the revised manuscript (in line183, page 9) .

Please also note the supplement to this comment:

<http://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2016-189/nhess-2016-189-AC2-supplement.pdf>

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