

Interactive comment on “Long-term Morphodynamics of a Schematic River Analysed with a Zero-dimensional, Two-reach, Two-grainsize Model” by Mariateresa Franzoia et al.

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Dear authors,

As you can see, we have now received two reviews for the manuscript. I think that both reviewers give many clear, relevant comments that need to be addressed in detail. In particular, the authors need to address the queries about the fundamental assumptions in the model set up (flume-like vs. field cases) and the range of applicability of the model.

Currently, the manuscript misses a discussion that puts the material into the context of existing literature. There are numerous models that predict concave-up river profiles –

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Discussion paper



the authors should look at downstream-hydraulic geometry and rational regime models; the seminal papers of Parker (e.g., J. Hydr. Eng. 1979) may provide a starting point for a literature research. I would like to see detailed explanations of where the model assumptions made by the authors differ from models in the literature, and a discussion of why they get different results from a process perspective. This could be followed by a short discussion of what kinds of landscape may feature the type of rivers described by the model, as suggested by the reviewers.

I also ask the authors to keep methods, results and interpretations separate. In particular, the results section should be separated from the discussion.

Best, Jens Turowski

Interactive comment on Earth Surf. Dynam. Discuss., doi:10.5194/esurf-2017-7, 2017.

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