Earth Surf. Dynam. Discuss., 2, C452–C453, 2014 www.earth-surf-dynam-discuss.net/2/C452/2014/

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## **ESurfD**

2, C452-C453, 2014

Interactive Comment

## Interactive comment on "Erosional response of an actively uplifting mountain belt to cyclic rainfall variations" by J. Braun et al.

J. Braun et al.

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We thank the reviewer for his positive review of our manuscript and agree with him that the discussion on the effect of hillslope processes and sediment transport should be improved in the discussion section. We are currently working on generalizing our findings to the case where the river is not only eroding but also transporting and its erosional efficiency is affected by sediment load. This will be the focus of another publication (and, if we have finished by then, of a presentation at the next AGU) We note however than such an approach will remain even more theoretical and putative than the results we present here, as it depends strongly (a) on the formulation used to represent the effect of sediment on river dynamics (tool vs cover effect) and (b) on the value of the additional parameters needed to insert these effects. We note that little

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consensus exists for either of these points, as recently highlighted by Lague (2014). The influence of hillslope processes can be more easily deduced from previous work; we will improve the relevant section of the manuscript.

Interactive comment on Earth Surf. Dynam. Discuss., 2, 971, 2014.

## **ESurfD**

2, C452-C453, 2014

Interactive Comment

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