

Interactive comment on “Analysis of an extreme rainfall-runoff event at the Landscape Evolution Observatory by means of a three-dimensional physically-based hydrologic model” by G.-Y. Niu et al.

G.-Y. Niu et al.

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Dear Editors,

All three reviewers think the paper is very interesting but suggested we improve the paper's presentation and include analyses of the LEO soil moisture data.

We have revised the paper according to the three reviewers' comments and suggestions. We followed the third reviewer's structural comments, we addressed some com-

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mon issues raised, and we made numerous other changes in response to specific suggestions. We revised each part of the paper including the title, abstract, introduction, and model setup, and we added a discussion section that addresses some of the main concerns of the reviewers. We also revised Figure 3 to show the exact locations of the seepage face nodes.

A detailed analysis of the soil moisture data has been included in another paper submitted to HESS-D, entitled “Hillslope experiment demonstrates role of convergence during two-step saturation” led by A. I. Gevaert. We cite this paper to confirm the saturation-runoff generation mechanism as simulated by our model.

Detailed replies to each of the questions of all three reviewers are attached here.

We hope that you will find our responses to the reviewer comments and our changes to the paper satisfactory, and we look forward to hearing from you.

Sincerely yours,

Guo-Yue Niu

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/10/C7644/2014/hessd-10-C7644-2014-supplement.pdf>

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