Geoscientific

Model Development

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Discussions

[GMDD]

Interactive

comment

Interactive comment on "Itzï (version 16.8): An open-source, distributed GIS model for dynamic flood simulation" *by* Laurent Guillaume Courty et al.

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Specific reply to referee number 1

First of all, we would like to thank referee number 1 for their constructive comments. The attached document shows the differences between the new proposed paper and the original submission. Below are the specific replies to each comment.

Page 2, Line 28: "presented an flood inundation model" should read "presented a flood inundation model"

Done.

Page2, Line 32: "low values of Manning's" – please define.

The specific value of n is now mentioned, as well a reference.

Page 3, Line 28: "scheme to sole" should read "scheme to solve"

Done.

Page 6, Line 13: "It consist of" should read "It consists of"

Done.

Page 89: potentially combine Fig 3 and 4 into 3a and 3b?

Figures 3 and 4 could very well be combined together. However, we believe that the final decision might be done by the typesetter who might choose the option which will fit better within the two columns layout of the final article.

Page 11, Line 11; "Hull University" should be "University of Hull"

Done. The caption of Fig. 10 has been changed as well.

Page 12, Line 4: "advantageous" might be a better word here than "handy"

Done.

Page 14, Figure 12: I did not find this figure very clear, could it be improved for clarity. Maybe make the background image grey so the three different colours stand out better. What is orange? The overlap?

Figure 12 has been re-done using a clearer colour scheme.

Page 14, Line 4: Can you provided a brief description of these skill scores for those unfamiliar with them and maybe highlight one or two that provide an indication of the fit.

A table describing succinctly the skill scores has been added. We have highlighted the Critical Success Index with corresponding reference.

Page 14, Line 7: "sensible" should be "sensitive"

Done.

Page 14, Line 20: "for" should be "of"

Done.

Page 16, Line 7: "proven" is probably too strong a word here, maybe "demonstrated" is better?

Done.

Page 17, Line 4: "been then" should read "then been"

Done.

Page 17, Line 6: "global dataset" should read "global datasets"

Done.

Figure Captions: My biggest problem is with the figure cations, as they tend to be over short and not describe the figures very well, resulting in a bit of cross-referencing with the text, rather than functioning stand alone. I would prefer to see more detail on all the figure captions. (eg figure 6 what are the crosses and numbers.

Figures captions have been enhanced and redundant in-text descriptions have been removed.

Other changes

- We tried to make Fig. 7 clearer and calculated the RMSE to better represent the differences between the two models.

- The process to obtain the Manning's n map is now clearer.

Please also note the supplement to this comment:

http://www.geosci-model-dev-discuss.net/gmd-2016-283/gmd-2016-283-AC1-supplement.pdf