Hydrology and Earth System Sciences Discussions

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Interactive comment on "Technical Note: Water flow routing on irregular meshes" *by* D. Bänninger

Anonymous Referee #2

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Technical Note: Water flow routing on irregular meshes D. Bänninger

This paper discusses an approach to flow routing across irregular grids. The approach presented is interesting, and the paper is worth publishing.

General comments: Although a comment has been added to the end of the introduction to clarify the scope of application of the proposed approach, it would be helpful if the author was still more explicit on this scope - e.g. how well would the approach presented be applicable to calculation of surface flow as opposed to sub-surface flow as discussed here. As the author points out, the flow equation used can be easily amended to more complex flow equations. In this light it would be interesting to discuss applicability to e.g. surface flow routing (similar to explicit approaches on regular grids can be found in literature). It may that limitations on the time step due to the

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explicit nature will make the approach unworkable in this domain. Obviously this is beyond the scope of the current technical note, but of interest nevertheless.

Specific comments Page 3676 Line 2: OLD: was needed which works as cellular SUGGESTION: was required that works as a cellular Line 3: OLD that usual NEW that the usual

Line 26: OLD: An other NEW Another

Page 3679: Line 10: It would be helpful in figure 2 to add symbols as used in the text. Lines 14,15,17: change continuous tense to present perfect: "Find", "Calculate" and "Calculate".

Lines 21-24. This is a bit confusing. Is it not the case that the definition of steady sate flow is that storage does not change, and thus inflows and outflows balance. This is not only specific to the case of triangles lying in one plane.

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