

Response to the editor:

Dear Andrew Wickert,

We have uploaded the final revised version of our manuscript “Modelling large-scale landform-evolution with a stream-power law for glacial erosion (OpenLEM v37): Benchmarking experiments against a more process-based description of ice flow (iSOSIA v3.4.3)” to consider for publication in Geoscientific Model Development.

First, we would like to thank the two reviewers again for their constructive comments. We appreciate their effort, which helped us to strongly improve our manuscript. In the final version, we have addressed the minor by reviewer #2 (Eric Deal) that have been marked as technical corrections:

Line 96 -> ... valleys, so that their width and the rates of erosion across the valley have to be included in the model explicitly.

Line 717 -> ... future improvement. Deal and Prasicek (2021) proposed an approach to compute the ice surface at a moderate numerical effort if the ice flux is given. Since this approach avoids steep gradients, it would be worth finding out whether it harmonizes with the concept of the cardinal flow line implemented in OpenLEM.

Thank you very much for the editorial handling.

Best regards, Moritz Liebl on behalf of all co-Authors