

Interactive comment on “Ice flow models and glacial erosion over multiple glacial–interglacial cycles” by R. M. Headley and T. A. Ehlers

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After reading the reviewers comments and the authors responses to them, I certainly recommend that the authors prepare a revised version of this manuscript. In doing so, I strongly encourage them to address two important points. The first, raised by Rev1, concerns the novelty and relevance of the work presented. There is a need to add statements in the abstract, introduction and conclusion/discussion sections, on the novelty of the work and the conclusions with respect to what has already been published on the subject, i.e. the effect of the SIA on predicted glacial erosion patterns and efficiency. A comparison with the work of Egholm et al comes to mind, for example. The second point is raised by both reviewers and must be addressed to make this paper more relevant and increase its potential impact: what are the reasons for the observed

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differences between model predictions? in other words, what's wrong with the SIA. Is it the high relief considered here or the siding velocity predictions, or something else? The authors need to be more explicit on the reasons for the observed differences. Although in the responses to the reviewers, I can see hints of the authors consideration for these main criticisms, they will need to be clearly addressed in the revised version of the manuscript before it is considered for publication in ESURFD. I also encourage the authors in taking into account/responding to all other points raised by the reviewers.

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