Geoscientific Model Development Discussions

Geosci. Model Dev. Discuss., community comment CC1
https://doi.org/10.5194/gmd-2021-269-CC1, 2021

Comment on gmd-2021-269

Andres Payo

Community comment on "CliffDelineaTool v1.2.0: an algorithm for identifying coastal cliff base and top positions" by Zuzanna M. Swirad and Adam P. Young, Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2021-269-CC1, 2021

Thanks for the opportunity to comment on your manuscript.

I am Andres Payo, lead developer of CliffMetrics and would very much like to see the comparison with your CliffDeliea Tool but I have one major concern with the current version of the manuscript which is regarding the lack of information about which version, and software and set up you have used to create the CliffMetrics outcomes.

In addition to the code added to the GMD Payo et al. (2018) manuscript, CliffMetric is also available via SAGA tools (URL = http://www.saga-gis.org/saga_tool_doc/7.9.0/ta_cliffmetrics_0.html). Which version have you used for this work is unclear.

Most importantly, which set up have you used is also unclear. I would appreciate if you include the input values as shown in Table 6 Payo et al. 2018 or SAGA input table.

Some of the jagginess that you seem to obtain with CliffMetrics (your Figure 7) are could easlily be avoided by iterating the CliffMetric set up parameters. CliffMetric runs fast to facilitate the iterative delineation of the cliff top and toe. Your own method has this iteration embeded in the methodology. As the manuscript stands now, I can not tell if your method is performing better than CliffMetric or you are just miss-using CliffMetrics by using the wrong iterative set-up.

Minor concerns:

In Page 2 Line 45 , the following sentence is not true "They used a constant transect length with decrease in model performance, but considerable time gain (Payo et al., 2018)." We did not found a decrease in model performance relative to PL2016 model and we explicitiky indicate that "By avoiding the need for fine-tuning the profile length, the proposed method speeds up the delineation process but does not eliminate the need for the screening of the model outputs." Please clarify what do you mean regarding decrease in model performance.