Comment on gmd-2021-277
Anonymous Referee #2

Referee comment on "Flow-Py v1.0: a customizable, open-source simulation tool to estimate runout and intensity of gravitational mass flows" by Christopher J. L. D'Amboise et al., Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2021-277-RC2, 2022

This paper is an important advancement in the study of GMF and snow avalanches, especially for studies at larger scales and in data space areas. Specifically the work has significant potential to assist with further automation of regional avalanche terrain exposure scale mapping at larger spatial scales. I'm glad to see open-source, object-orientated code allowing for further development and adaptation.

The paper was well written, at the validation methods applied were appropriate. I agree with other commentators that it would also have been interesting to see a comparison of processing times for the same study path using different models. It would have been interesting to see a comparison of the raster output of the model against other GMF approaches, such as TauDEM.

The code was well documented and there was sufficient guidance to configure the parametrization. I was able to run the code run on both Linux and Windows machines and replicate the sample studies. In practice, I found it was most efficient to conduct simulations over larger spatial scales using an AWS cloud computing implementation to fully benefit from the parallel processing.

Technical corrections:

In 15 - topograhies -> topographies

In 86 - modeling -> modelling
In 399 the these  -> these