

Interactive comment on “ATAT 1.0, an Automated Timing Accordance Tool for comparing ice-sheet model output with geochronological data” by Jeremy C. Ely et al.

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After a long description of data and model uncertainties, the authors present a description and example application of a data-model comparison software tool. As detailed below, I find several flaws in the proposed data-model comparison algorithm that need to be addressed. Furthermore, I do not understand why the authors place so much attention on model uncertainty in the text and then fully ignore it in the design of their metrics. If this tool is meant to be used by those doing model calibration against paleo observations, then model uncertainty and downscaling error needs to be explicitly accounted for in the metric. A few of my issues can be addressed by making the package

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more flexible to handle user choices of metrics (eg implemented by documentation of how to change the metric).

To preserve my prefixed "#" format for IDing my comments, the rest of my review is in the attachment

Please also note the supplement to this comment:

<https://www.geosci-model-dev-discuss.net/gmd-2018-12/gmd-2018-12-RC2-supplement.pdf>

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2018-12>, 2018.

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