

Interactive comment on “Constraining stochastic 3-D structural geological models with topology information using Approximate Bayesian Computation using GemPy 2.1” by Alexander Schaaf et al.

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Thank you very much for your constructive review of our manuscript. We have incorporated many of your suggested improvements into our manuscript and believe this has significantly improved its quality and readability.

We have addressed many of the reviewer’s suggestions to improve wording and grammar throughout the manuscript. We have mostly removed the term “likelihood-free” from the manuscript to not confuse the reader, except where we directly reference lit-

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erature that uses this term. We have elaborated on our choice of prior parametrization, have improved the mathematical notation of the statistical methods used so that the reader can more clearly differentiate between what our priors are and what our constraint is (i.e. the ABC-equivalent to the likelihood). We have not significantly cut the ABC method description, as we believe it will be valuable to the geoscientific reader to read about it in the context of geological modeling.

Please find all our detailed responses to your comments in the supplementary material, along with the change-tracked manuscript.

Please also note the supplement to this comment:

<https://gmd.copernicus.org/preprints/gmd-2020-136/gmd-2020-136-AC2-supplement.zip>

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2020-136>, 2020.

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