

Geosci. Model Dev. Discuss., author comment AC4
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Reply on RC3

Mirko Mälicke

Author comment on "SciKit-GStat 1.0: a SciPy-flavored geostatistical variogram estimation toolbox written in Python" by Mirko Mälicke, Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2021-174-AC4>, 2022

I thank Anonymous Referee #3 for the many helpful comments to improve the figures. This is highly appreciated. Please find the *Referee comments (in italic)* below, followed by my answer.

1. *A grid should be embedded in Figure 1 to make visualisation easier.*

Answer: Agree. This is a good idea.

2. *A histogram can be plotted separately along with Figure 2 with fitted normal distribution so that it's easier to visualise data distribution and accuracy of prediction.*

Answer: While SciKit-GStat allows making separated plots, I personally prefer the way it is plotted. The histogram is visualizing the count of point pairs for each of the distance lags, on top of the corresponding lag class. Which I find quite useful. Unfortunately, I am not sure what I should fit a normal distribution to and what 'prediction' is referring to, here.

However, I will revise the figure caption to make more clear, what is actually shown.

3. *A grid should be embedded in Figure 4 with more distinguishable colour bands to simplify visualisation.*

Answer: Thanks for the suggestion. I will add a grid to all three subplots and consider changing the color bands, i.e. to the same as used in figure 10.

4. *How did you plot figure 6? Which data is used? A paragraph on data description can be provided*

Answer: I refer to my answer to minor comment #5 of the first referee comment (<https://doi.org/10.5194/gmd-2021-174-AC1>) and my answer to comment #2 of the second referee comment (<https://doi.org/10.5194/gmd-2021-174-AC3>). They address this issue and I will revise the sections.

5. *In figure 7, what does the legend show? a more descriptive legend should be provided.*

Answer: I agree and will add a label to the legend and extend the figure caption.

6. *In figure 9, the axis should be labelled.*

Answer: Thanks for pointing this out.

7. *Figure 10 can be redrawn with high resolution along with an axis labelled*

Answer: Thanks, I will add the label and include a high-resolution figure.

8. *Make figure 11 a bit bigger*

Answer: I will change figure 11 from a one-column to a two-column figure.