

Dear editor,

We thank you for your time and effort to go through our manuscript once again.

Concerning the last remaining reviewer remarks:

1. *Please ensure that all vector variables (e.g., d , m , ϵ) are in bold italics.*

We have done that throughout the text

2. LL 138–149: The paragraph describing the comparison between observation and modeled values is still somewhat wordy. A more mathematical presentation may help clarify the explanation.

For example, it may help to define the observed profile as $d(z)$ and the predicted profile as $m(z)$, so that the observation equation can be written as $d_i = m_i + \epsilon_i$, where $d_i = d(z_i)$, $m_i = m(z_i)$, and $i = 1, 2, \dots, N$.

We have shortened that paragraph, and placed in the last paragraph of section 2.2 now. It reads:

“In this work, the data vector is defined as the horizontal position of a set of points measured on the shoreline with a vertical step size (*ipstep*; Fig. 2a). That is, the observed profile is defined as $d(z_i)$, where z_i (with $i=1,2,\dots,N$) is a regular grid of elevations. The misfit between this observed topography and the modelled paleo-shoreline sequences is therefore measured by comparing the horizontal distance between observed and simulated horizontal position at each vertical grid point z_i .”

3. I find the new Figure 7 to be very helpful for understanding the interpretation. It would be even better if a north arrow could be added to the map for orientation.

We have added the north arrow

We are looking forward to seeing this manuscript published soon, best regards,

Gino de Gelder, Navid Hedjazian, Laurent Husson, Thomas Bodin, Anne-Morwenn Pastier, Yannick Boucharat, Kevin Podoja, Tubagus Solihuddin and Sri Yudawati Cahyarini