

Response to Editor:

Please carefully check the wording of the additional text that you included in the manuscript, since I detected a few errors in the new text.

Response: Thank you for the constructive and encouraging comments regarding our manuscript. We have enclosed a carefully revised manuscript according to the comments and suggestions provided.

For example, in the Abstract you state: "Spatial analysis of China coastal PWV showed that minimum values decreasing with increasing latitude, ..." which is not correct and should be replaced by: "Spatial analysis of China coastal PWV showed that minimum values decrease with increasing latitude, ..."

Response: Thank you so much for your suggestion. We have made the amendments and carefully checked the entire manuscript, as shown in the track-changes PDF.

Also, the text of some of the figure captions need revisions, e.g. "Figure 16: PWV increasing value by 1K SST (a), and relative PWV increasing value by 1 K SST." The caption should describe the data that is included in each panel. Please carefully revise the captions.

Response: Thank you so much for your suggestion. Amended. We also reviewed all the captions in the manuscript, and the changes are highlighted in the track-changes PDF.

When checking the data files in <https://zenodo.org/records/16593631>, and unpacking Final_pwd.rar it is unclear what the columns are in the data files (e.g. NZUH.txt). Please clarify in the description.

Response: Thank you so much for your suggestion. We have already uploaded a new version of data file "Final_pwv.zip" (<https://doi.org/10.5281/zenodo.17012498>). The meaning of columns in data file can be seen "Documentation for Final PWV.txt".