

Dear Editor:

Thank you very much for your careful review comments on our manuscript EGUSPHERE-2025-737. In the following, we quoted the review question in the square brackets and accordingly presented our response whereafter.

Responses to Editor

[I have one suggestion: given it was identified by one of the reviewers as unclear, please consider adding the description of what the black line in Fig. 3a and 4a indicates to the figure captions.]

Response: Thank you for the careful review. We have accordingly added the description of what the black line in Fig. 3a and 4a indicates to the figure captions as follows:

“Figure 3: Heterogeneous correlations of (a) TP thermal forcing, where the black line represents the isoline of altitude at 3000 m outlining the area of the TP, (b) STT frequency, where the red and blue dashed lines denote the northern and southern branches of STT frequency, respectively, and (c) their normalized temporal coefficients in the first SVD mode (SVD1). Black dots mean passing the 90 % confidence level based on the Student’s t-test.

Figure 4: Same as Fig. 3, but for the second SVD mode (SVD2).”