

Comment: The referee comments were well addressed and the manuscript has improved in consequence. However, I agree with referee #2 that the sliding t-test and accompanying equations (4-6) are not sufficiently explained. The equations appear rather clunky, x should be written x_t (where $_$ denotes an underscore) and a reference to literature is missing. Is your method similar to [De Souza, 1983]? Then you might consider adopting his notation with x_i and y_i .

Reference:

Peter de Souza (1983): Edge detection using sliding statistical tests, Computer Vision, Graphics, and Image Processing, 23(1),1-14, [https://doi.org/10.1016/0734-189X\(83\)90051-8](https://doi.org/10.1016/0734-189X(83)90051-8).

Reply: Thanks to the editor for pointing this out. In the revision, we have simplified the complicated equations (4-6) into one equation (line 175). And variables are distinguished by subscripts as you suggested. The sliding t-test used in this study is very similar to the reference you mentioned, but slightly different. And one more closely related reference has been cited in the revision (Maasch, 1988).

Reference:

Maasch, K. A.: Statistical detection of the mid-Pleistocene transition, Climate Dynamics, 2, 133-143, <https://doi.org/10.1007/BF01053471>, 1988.