

Response to reviewer comments

Dear Editor

We are very grateful for the attention you have given to our manuscript. The reviewer comments have helped us make it a much clearer paper and we have found them to be very constructive and valuable. We have now revised the manuscript to address the specific comments below (our comments in **bold**).

Best wishes

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Reviewer #1:

Methods

1. First paragraph of Methods: The descriptions of the component CIT tests 1 and 3 are not accurate. The conditional nature of the tests are not described.

Thank you for pointing this out, we have now reworded this section and included the correct test formulations.

2. It is not clear why $\text{CIT}(x \rightarrow y) < \alpha$ and $\text{CIT}(y \rightarrow x) < \alpha$ would imply $(x \leftarrow u \rightarrow y)$ [also, u is introduced without definition here].

We failed to make this clear, and have now added a supplementary figure that shows this result.

3. Figure 3. The y-axis title “False Positive Rate” is confusing for the upper panel labeled “Power” on the right.

Thank you, the axis label and figure legend have been reworded for clarity now.

Reviewer #2:

The authors have responded adequately to my previous comments. There now just remain a few typos for correction:

1. Page 9 line 4: should there be an “=” sign between ρ_{y,y_0} and “1” ?

Thank you, this has been corrected

2. Page 15: Remove “False” from y axis legend on the left (since the top plots show the true positive rate, not the false positive rate). Remove “True” from Figure 3 legend (since the bottom plots show false positive rates, not true positive rates).

Thank you, this has been corrected.

3. Page 16: Replace the word “red” with “black” wherever it appears in the Figure 4 legend, since you appear to be using a black plane/surface, not a red one.

Thank you for this, corrected.