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Interactive comment

## Interactive comment on "A new tool for model assessment in the frequency domain – Spectral Taylor Diagram: application to a global ocean general circulation model with tides" by Mabel Costa Calim et al.

## M. Calim Costa

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Received and published: 14 May 2018

Thank you for taking your time for the review. I hope I can clear respond your comments.

By using Spectral Taylor Diagram is possible to visualize and evaluate all eight principal tidal constituents (or more) together in a single snapshot. I agree with you that the technique can't tell if the model is outperforming the other by chance, but it's clear that this tool can give a clue which tidal constituent need a fix compared to tidal gauges

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data.

It's a great idea to demonstrate what could happen if a non-stationary time series were used in the Spectral Taylor Diagram. I will make this as an example of misleading use of this technique in github channel, were the code will be freely available.

The mixing scheme is not performed in this model. By adding phase information to tidal constituents, and so changing the MOM5 code, I need to make sure that the mixing scheme works with this new model configuration. That's why the model it's prepare to run with mixing scheme in future studies, so it's not implemented in this paper.

Thanks for the tips to better writing. I'll incorporated them all in the text.

If any other doubt or question arise I'll be pleased to answer it. Thank you again for your interest in our paper.

Best regards.

Interactive comment on Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2018-5, 2018.

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