

## ***Interactive comment on “The impact of wave physics in the CMEMS-IBI ocean system Part A: Wave forcing validation” by Romain Rainaud et al.***

**Romain Rainaud et al.**

lotfi.aouf@meteo.fr

Received and published: 29 September 2019

Thanks for comments of reviewer1, I think this will help to improve the manuscript.

1- I agree that we need to detail why it is better with new tuning of the model. The old tuning of ST4 physics induces clearly a larger surface stress (drag coefficient) for intermediate and high wind speed (10-30 m/s). To reduce the increase of stress we implemented then the Philipps tail shape of spectrum for the high frequency part of the wave spectrum.

2- yes you are right Philipps shape spectrum estimate better Stokes drift

3- we should remove any comments on peak wave period if they are not included in the validation

C1

4- SST in wave observations is removed

5- Yes the tuning of the model concerns not only dissipation term, but also wind input source term this will be added in the text

6- We can add a difference of Stokes drift between old and new version of the model. The only reference we have is the final report of My wave project.

Regarding to the English of the manuscript and the typos, we will include the corrections in the new version of the manuscript.

---

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2018-165>, 2019.

C2