

## ***Interactive comment on “A quasi-experimental coastal region eddy diffusivity applied in the APUGRID model” by Silvana Maldaner et al.***

### **Anonymous Referee #1**

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This paper presents new information (eddy diffusivities) derived for a coastal region at southeast Brazil that can be used for air quality dispersion. The results are compared with the Copenhagen Experiment. There are few small mistakes (marked on the attached version). My main question is: why to compare results from a tropical region (although coastal) with a midlatitude results (Copenhagen). Also, I guess that a deeper discussion about the thermal stratification and the formation of an internal boundary layer (IBL) and its influence on the results are needed. Also, the methodology is very short and there is only 1 figure and 1 table (It may be associated with the length permitted as it was a paper coming from a Proceedings).

Please also note the supplement to this comment:

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<https://www.ann-geophys-discuss.net/angeo-2019-85/angeo-2019-85-RC1-supplement.pdf>

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Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2019-85>, 2019.

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