

## ***Interactive comment on “Departure from $K$ -theory in the planetary boundary layer” by Pedro Santos et al.***

**Pedro Santos et al.**

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We have received two reviews from anonymous referees, which are addressed together since their comments pertain to the same topics.

Our objective with this journal paper is to expand on the conference paper Santos et al. 2020 JPCS: 1618. Therefore, we disagree with comments related to plagiarism because many journals accept such an expansion of scope, as long as the journal paper is significantly expanded. We consider that this paper has sufficient new content, with new observations and numerical simulations that falsify the hypothesis that the vector of vertical flux of horizontal momentum and the vector of mean vertical gradient of horizontal velocity are aligned. It is worth mentioning that observed values of

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such misalignment over the sea have not been reported before the original conference paper.

We do not consider a problem that the paper does not offer an explanation for the behavior of such misalignment, which evidences the departure of what is assumed by the  $K$ -theory. Should scientific results only be published when explained? We present careful observations of a phenomenon and we do not offer an explanation of it, but we still think they are of general interest and that others might explain them later.

On behalf of the authors,

Pedro Santos

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Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2020-960>, 2020.

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