

Review 1

The authors express their gratitude to the Reviewer for careful reading and high appreciation of the work. All typos have been corrected.

Review 2

The authors are grateful to the Reviewer for careful reading of the manuscript and valuable comments. The manuscript has been revised according to the comments. Please find below our responses to the main points of the review.

1. *The data analysis does not include any kind of uncertainty and statistical confidence estimates. The paper always presents just one curve for observations at each station. If we look into the paper by Forryan et al. (2013), which is referred in this study, we would see very scattered data there. The authors need to treat and account for this data scatter properly.*

Indeed, the data of Forryan et al., 2013 shows a significant, up to an order, data scatter from each cruise, obtained in different locations and on different days. Unfortunately, the authors of that paper did not specify confidence intervals of the data, and no correlation between different curves for shear and buoyancy frequency curves is known. All we could do is to evaluate the maximal possible scatter of the results. For that, we calculated maximal and minimal values of the Richardson number (by dividing the rightmost values of N^2 by the leftmost values of S^2 and vice versa) and found the corresponding extreme profiles for TKE dissipation rate. These maximal limits exceed the scattering for this value shown in Forryan, 2013 which implies that knowing the data for a specific location and time of the measurement, we could reasonably well predict the corresponding data scatter for turbulent kinetic energy dissipation rate. This plot for one cruise and the corresponding comments are added in the concluding section of the paper. The results for other two cruises are qualitatively similar.

2. *The text is written in understandable English, but many sentences are too long and cumbersome. E.g., the abstract consists of just 3 very long sentences, which are hard to understand. Moreover, the "Discussion and conclusions" section contains neither discussion nor conclusions. The authors do not discuss the results and did not state the conclusions, they just repeat what they did in the study.*

We made the abstract shorter. In the concluding section, after a summary of results, we added a discussion of data scatter (with the figure), as mentioned above. We also briefly specified the future problems. Hope we understood your comments correctly.

We also corrected minor flaws. In particular, the notation b for TKE is replaced by K (in alignment with P for TPE).