

Review of the paper entitled:

Hydrography in the Mediterranean Sea during a cruise with RV Tethys 2 in May 2015

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The manuscript reports about hydrographical and biogeochemical data which were gained in the Mediterranean Sea during a cruise with the research vessel Tethys 2 in May 2015. The aim of the cruise was to calibrate BGC –Argo float data and to introduce procedures for this kind of calibration. The description of observation methods and data processing is clear and detailed (maybe sometimes even too detailed for those observation methods which are standard procedures). The data and presentation quality is good and the data is accessible under the corresponding doi number. To my opinion the manuscript is worthwhile to be published in Earth System Science Data with some minor corrections discussed below.

1. Title: could be improved. For example: Hydrography and biogeochemicals in the Mediterranean Sea during a cruise with RV Tethys 2 in May 2015 to calibrate BGC-Argo floats
2. Page 1, line 25: for (instead of to) temperature ...?
3. Page 3, line 8-13: this is standard for a research vessel, can be shortened.
4. Page 3, line 15-16: I understand that usually two casts were taken at a station. But what about samples? Were they taken at standard depths? Or, different depths at different stations?
5. Page 5, line 4: When CTD profile available ... were available
6. Page 5, line 8-14: I am not sure if I got it right: the transects had to be done in order to correct the misalignment angle of the ADCP? If so, you should use i.e. the CODAS software (Hawaii) for ADCP data analysis, this calculation is included there.
7. Page 7, paragraph 2.2.3: just a comment: it is uncommon, not to check especially salinity against samples, also in case of the TSG. You were lucky that your sensors remained stable. In case not, you would not be able to reproduce the station when it happened and to correct values accordingly.
8. Page 8, line 1: I guess it is 1988 instead of 1888.
9. Page 8, 1-30: to my opinion too detailed, it is standard method
10. Page 12, line 23 instead of upper panel, left panel?
11. Table 3 is confusing: in LDEO you list the components but in the following columns you calculate it with and without these components? It's a contradiction?