

Interactive comment on “Physical forcing and physical/biochemical variability of the Mediterranean Sea: a review of unresolved issues and directions for future research” by P. Malanotte-Rizzoli et al.

Anonymous Referee #2

Received and published: 12 September 2013

The paper describes major physical and biochemical features of the Mediterranean and some mechanisms for their formation. The quality level of the description is very suitable for young scientists but can also give a broader view to mature scientists beginning with multidisciplinary research in the Mediterranean. A careful reader of the paper will get an integral understanding of the marine system behavior as well as a roadmap of the common hierarchy of problems.

I completely agreed with comments of the Anonymous Referee #1, which are published already in the Interactive Discussion of the paper (<http://www.ocean-sci->

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[discuss.net/10/C431/2013/osd-10-C431-2013.pdf](http://www.ocean-sci-discuss.net/10/C431/2013/osd-10-C431-2013.pdf)). The paper has to be restructured and reedited in order to avoid the evident heterogeneity. Furthermore, since there are many sections and subsections I recommend adding contents to the introduction.

I recommend ungrouping the subsections in section 2 (Differences and similarities between . . .) and sections 3 (Relative importance of external forcing. . .) into individual sections. I think also that subsection 2.2 (Circulation, forcing and water masses. . .) should be merged with section 3.1 (Major Forcing of the Mediterranean circulation) and that subsection 3.2 (Interactions between the shelf/slope circulation and open sea . . .) should be absorbed into section 4 (Shelf/deep sea interactions and exchanges. . .).

I recommend removing “Levantine Basin” from the title of 4.1.3 (Eastern Mediterranean and Levantine Basin). This subsection can benefit from additional description of quasi permanent features like Central Ionian Current, Mid Mediterranean Jet, Cyprus Eddy and Shikmona Eddy. Long term scientific discussion regarding these features was summarized recently in papers of Gerin et al., 2009; Mena et al., 2013; and Poulain et al., 2013.

I think also that some figures (Mediterranean map, overturning scheme, circulation, T/S diagrams etc'. . .) will improve readability of the paper.

Interactive comment on Ocean Sci. Discuss., 10, 1205, 2013.