

Interactive comment on “Rapid subduction in the deep North Western Mediterranean” by J. A. Aguilar et al.

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I am puzzled by this paper, which describes an isolated measurement in a complex region at the foot of the continental slope of the northern Mediterranean.

Persistent vertical velocity in a stratified ocean is possible in the presence of topography and persistent horizontal circulation yet it is unlikely otherwise. At first sight I would be concerned about the orientation of the adcp relative to the vertical axis which could alias horizontal motion into apparent vertical velocity.

Is the structure of the (rather complex) measurement platform possibly distorting horizontal circulation, producing w-velocities? We are not given very much information about this mounting structure. What is the nature of the three “storeys”?

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Not being a biologist I do not know if the appearance of biological echoes at these depths is in some way unusual.

I don't feel that the discussion of baroclinic instability and convection helps very much in understanding the observation. It is typical of isolated oceanographic measurements that they are difficult to use conclusively, which is why oceanography has moved on to more comprehensive observational programs.

Finally, though it is not important, it seems peculiar to list everyone connected with a project as an “author”. I guess this must be a cultural difference between physics and oceanography, but it mocks the idea of authorship.

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