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Ocean Science
Discussions

Interactive comment on "The influence of the Brazil and Malvinas Currents on the southwestern Atlantic shelf circulation" *by* R. P. Matano et al.

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We thank the reviewer for his/her comments.

Section 3 starts with the results of a numerical simulation experiment. The comparison with observations is only discussed at the end of the paragraph. I would prefer that the quality of the simulations, with respect to the observations, is discussed first. For instance a comparison with SST from satellite or in-situ data.

Thanks for the recommendation. We would like to note that we already compared the model results with most of the available observations (Palma and Matano, 2009, Continental Shelf Research), see also the attached figures comparing the model results with the COROAS data set (Campos et al., 2001). We decided against comparing the

model results with SSTs for two reasons. First, because it is meaningless to compare individual events. Second, because the statistics (e.g., the seasonal SST cycle) of the model are biased by the Newtonian restoring to the heat fluxes. Thus, seasonal SSTs of the model compare well with observations but this is partly due to the fact that the model is forced with observations.

Reading the article I was wondering what would be the results of EXP3 for the SBB and EXP2 for the Patagonian shelf. According to the theory outlined by the authors the differences with EXP1 should be less. A discussion of these results would strengthen the article.

Good suggestion. A discussion of these matters will be included in the revised version of the article.

The figure caption of Fig. 13 describes three panels, whereas only one panel is shown. The paragraph on the STSF is also the less informative. A more extensive analysis of the numerical experiments might be helpful.

Our mistake. The caption will be corrected.

Typo's:

Thanks.

Interactive comment on Ocean Sci. Discuss., 7, 837, 2010.