PS4.1

Large scale circulation in the Canary Basin.

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We show the mean and seasonal ocean circulation in the Canary basin, as result from an inverse model. For this purpose, a high-quality data set, obtained during the CANIGO (Canary Islands, Azores and Gibraltar Observations) project, has been used. It is composed of CTD casts carried out in four cruises along the four seasons. Basically, mean surface circulation consists of an upwelling jet (UJ) carrying 1.0+/-0.4 Sv, separated from the Canary Current (CC), which carries 3.9+/-0.5 Sv. These two regimes can also be found in the seasonal circulation, obtaining the highest transport in summer (1.9+/-0.5 Sv for the UJ and 5.6+/-0.5 Sv in the CC). Mesoscale structures induced by the presence of the islands are also important in the central waters circulation. The intermediate depth circulation is dominated by the presence of two water masses flowing in opposite directions, AAIW and MW, flowing northward and southward respectively, without a clear seasonal variability. Finally, deep ocean circulation in this basin is featured by its uncertainty, which prevent us to find out a significant circulation for these depths.

PS4.2

A model for the primary production on the Faroe Shelf.

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On the Faroe Shelf there is a high correlation between the primary production and fish production. Observations furthermore show large variations in the total primary production from one year to another and there are indications that grazing by zooplankton is a controlling factor. Here we present preliminary results from a mathematical model for the lowest trophical levels on the Faroe Shelf. We discuss the effects of different exchange rates between shelf and off shelf water and the extent, to which the model supports the hypothesis of zooplankton grazing as a controlling factor for the production.