



Fluxes across shelf in microtidal seas

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The shelf circulation in microtidal sea is mainly driven by wind stress and river plumes inducing non linear interaction between up/down-wellings and density curenents. Complex mixing processes, including salinity fronts and secondary flows, the size of internal Rossby deformation radius are major factors to understand the time and space scales of biological production in the shelf. Moreover, efficiency for exporting telluric suspended matter across the shelf break is dominated by high frequency wind structures and seasonnal and interannual vairability.

From numerical model outputs compared to available satellite images, analysis of basic relevant processes in coastal flows is presented concerning the sites of Ebro and Rhone rivers in Mediterranean sea.