



## **Zonal jets and westward propagating eddies in the mid-latitude Eastern North Atlantic**

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The Eastern North Atlantic Region between the subtropical and subpolar gyres east of Mid Atlantic Ridge is characterised by relatively slow circulation and weak eddy activity. In classical circulation schemes this region is dominated by a southward broad current (the Portugal Current) and also influenced by circulation at intermediate depths induced by the spreading of Mediterranean overflow Water. Recent eddy permitting models however confirm observational evidence of zonal jets and recirculations in this region. The most significant is a continuation of the Azores current ( $\sim 35^{\circ}\text{N}$ ) eastward to the Gulf of Cadiz and two other less energetic jets further north ( $40^{\circ}$  and  $45^{\circ}\text{N}$ ). In the case of the Azores current the zonal jet is strongly perturbed by westward travelling eddies (mainly large persistent cyclones). We show results of ongoing simulations using nested model configurations where eddy permitting resolutions at the basin scale provide boundary conditions for the eddy resolving boxes along the jets axis and the main features these mesoscale structures is represented.