



## **Understanding Black Sea Dynamics: Overview of recent modelling**

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The importance of the Black Sea extends far beyond its regional role as a mixing body where Mediterranean water dilutes. This sea provides a marine environment acting as a small scale laboratory for investigation of processes that are common to different areas of the world ocean. In particular, the research on deep ventilation could facilitate understanding similar controlling processes in the world ocean in the past when the ocean conveyor belt was shallower. Because the water and salt balances are easily controllable and the scales are smaller than of the global ocean this basin is a useful test region in developing models, which can be further applied to larger scales. The major aim of this paper is to demonstrate that studying outputs from numerical models is an important complement to the sparse observations and provides an important scientific guidance, the latter proved by the fact that number of fundamental results have been first derived from theory and afterwards supported by observations.