



Analysis of the performance of three 2d storm surge models

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We analyze the performance of three 2d models. The model domains cover the North Sea, the Mediterranean Sea and the Canadian Atlantic coasts for the time period 1960-2000. The models are driven with different atmospheric forcing and operate in radically different environments ranging from the shallow and tidally dominated North Sea to the deep Mediterranean Sea where tides are only important in small areas. The models are compared with tide gauges at monthly, inter-annual and decadal scales as well as in terms of the observed trends. The use of the storm surge models significantly improves the agreement between the residual trends in the tide gauge data demonstrating the importance of accounting for the regional variation of the atmospheric forcing