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Review of the recent regional climate modelling studies of the Adriatic region

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Adriatic region is characterized by the distinct topographical and coastline structures. This leads to the specific climate regimes, and the formation of e.g. strong bora/Bura flows. The results of regional climate models from the EURO-CORDEX initiative and most recent DHMZ simulations using regional climate model RegCM4 will be presented and discussed. Planetary boundary layer quantities such as the near-surface air temperature, total precipitation amount and near-surface wind will be explored in terms of both systematic errors of the RCMs and their possible climate change projections for the rest of the 21st century. Finally, recent results concerning analytical modelling of the katabatic and anabatic flows will be presented, and possible further refinements of these models will be suggested.