



The climate in the Venetian and North Adriatic region: variability, trends and change

workshop

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TOPIC T2. Northern Adriatic sea level and circulation: variability and trends

Sea level at Venice and Trieste: common features and differences

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Short abstract:

Over a century of data allow to describe and compare the sea level evolution and variability at Venice and Trieste on different time scales.

On seasonal up to interdecadal timescales similarities prevail, as a consequence of the fact that the two stations are located on the coast of the Northern Adriatic, a relatively small basin, thus experiencing the same variability of the atmospheric forcing and the water column properties. However, the effect of anthropogenic subsidence on Venice record is evident mainly in the 1950's and 1960's.

On shorter timescales the effect of meteorology is dominant and the response of sea level shows differences at the two stations. Variability on the synoptic timescale is particularly important due to the potentially harmful effects of storm surges on the coastal area. In this case the relevant factor is the different exposure of the two sites to the main wind regimes that characterize the Northern Adriatic, namely Bora and Sirocco.