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## **Trends and variability of storm surge events in Venice**

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Tide gauge records present a long, uninterrupted time series (since 1940 to present) in Venice. This can be used for the analysis of the statistics of surge events and of their extreme values. Analysis shows a large interdecadal variability, linked to NAO and to external factors such as sunspot variability. Trend of high surge events show a trend related to local loss of ground level with respect to that of the sea, which is combination of actual sea level rise and soil subsidence. This loss appears to be the major source of the increased frequency of floods of Venice city center, with change of storminess and changes of internal hydrodynamics of the lagoon playing a secondary role.