



## **Extreme water level and their impact on the German Baltic Sea coast**

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Long-term sea level data records on the German Baltic Sea coast reveal that extreme water level variations appear regularly, and depending on their strength, they may cause economic and ecological damages. In order to minimize the consequences of such events, we depend on predictions of their recurrence probability and knowledge about their impact. Therefore, we analysed sea level data for the German Baltic Sea Coast for a period between 1950 and today and studied by a simulation of various water levels, which regions are particularly endangered by storm surges and low sea levels, respectively. For various stations, we show the frequency of storm surges and low sea levels and give an estimate about the recurrence probability, which was found to vary regionally between 5 and more than 50 years. In addition, we discuss the impact that the duration of an extreme event has, exemplarily for storm surges in Warnemünde.