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Storm Surges Forecast and Climate - Southern Baltic Sea

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The aim of the paper was to present storm surges climate changes in Swinoujscie tide gauges (Southern Baltic), the operational forecast models running in the Sea Level Service in Poland and under the calibration (MIKE 21 in the frame of the project PL0103 founded by Norwegian Financial Mechanism) or implementation (Artificial Neural Network model) . The sea level observations from tide gauges, provided by IMGW, from 1950 till 2007 were used.

It was found, that threat of storm surge flooding increased towards the end of the 20 century nearly twice, compared to the middle of 20 century. The 3 different methods for determination of the highest hypothetical possible sea level were examined as well as the used to prepare inundation maps of the coastal area (marine models combined with HEC-RAS model).