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Physical modeling of coast line reformation due to extreme waves action

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The littoral processes at the bottom and shoreline cause the reformation of the coast line. This morpho-dynamics is extremely powerful during the storm waves action. The building of a new hydro-technical structure at the shoreline may be a cause of the change and reformation of the bottom and the coast line. Therefore designing the new objects one has to take account of their characteristics and assessment of damages due to the deposit and the erosion. The problems associated with sediments and abrasions are difficult to solve theoretically.
In this report we consider a coast line reformation arising under storm waves action in the place of the expected oil terminal at the Baltic shore. A model of specific object was built in the hydro-wave basin. The series of experiments on shoreline reforming due to the extreme storm waves were fulfilled. As a result, we propose to make a specified shift in the location of terminal's building to prevent the substantial change in the coast line morpho-dynamics.