



Statistical characteristics of the non-linear run-up measured in a wave flume

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Standard deviation, skewness, kurtosis, and extreme parameters of the run-up are investigated in a one-dimensional wave flume of 0.3 m depth and 16m length. Resistance probes are used to measure the water elevation far from the “shore” and capacitance probes are used to measure the run-up. Shallow water waves with the narrow band spectrum have been generated in a range of amplitudes. Differences between the linear and the non-linear run-up regimes have been detected and compared with the theoretical model [1].

[1] I. Didenkulova, E. Pelinovsky, A. Sergeeva. Statistical characteristics of long waves near shore // Coastal Engineering 58, 94-102 (2011).