The features of fluid oscillations in a rectangular vessel with local bottom irregularities

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The article describes the results of laboratory experiments devoted to the estimation of bottom topography influence on the stationary surface waves' frequencies and forms in a rectangular vessel which oscillates in vertical direction. The effect of one or two elevations at a horizontal bottom and at a linear shoal is considered properly. The resonance deviation with respect to the obstruction position changing is investigated in the experiment at a linear inclined bottom. The mathematical model of seiches based on the accelerated convergence was used to explain the results of experiment in case of abrupt elevation.

Key words: *stationary surface waves, bottom topography, accelerated convergence, resonance dependence, frequency deviation, seiches.*

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