Statistics of Rogue Waves

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In our talk nonlinear dynamics of water waves with forcing and dissiapation is considered. We use the exact numerical simulation of nonlinear water waves on the basis of full nonlinear differential equations. We have steady model of nonlinear dynamics of waves on water.

In our model there are rogue waves with certain frequency. As a result of a considerable quantity of experiments we have constructed estimation for intensity of occurrence of rogue waves.

References
[1] V.E. Zakharov, A.I. Dyachenko, R.V. Shamin. How probability for freak wave formation can be found // THE EUROPEAN PHYSICAL JOURNAL - SPECIAL TOPICS Volume 185, Number 1, 113-124, DOI: 10.1140/epjst/e2010-01242-y