



Modeling of rogue wave shapes in shallow water

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The appearance of various rogue wave shapes is discussed in the frames of mechanism of nonlinear focusing of transient frequency modulated wave groups. The special attention is paid on formation of trough in front of the high crest. The conditions of appearance of “three sisters” are discussed also. It is very important to emphasize that this mechanism is not too sensitive to the variation of the shape of transient frequency modulated wave groups. It seems that the variable-polarity shape of a rogue wave is more probable than only a crest or a trough, because the generation of the latter ones needs a specific phase relation between individual waves in the group.