

Resonant interactions and rogue waves

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Abstract:

Rogue waves in fluid dynamics and optics may be modeled by lump-solutions of nonlinear partial differential equations. Examples of such solutions are displayed and discussed in cases of resonant wave interactions in 1+1 dimensions.

References:

Baronio F, Degasperis A, Conforti M, Wabnitz S (2012). Solutions of the Vector Nonlinear Schroedinger Equations: Evidence for Deterministic Rogue Waves. Phys. Rev. Lett. vol. 109; p. 044102-044106