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Chugunov**. *Wave propagation over the shelf or isolated obstacle.*

A solitary wave propagation over an underwater rectangular depth discontinuity is examined using perturbative analysis. The linear wave solutions are used to generate higher order nonlinear corrections; these corrections are rendered uniformly valid using the method of renormalization. In particular, the physical principles of energy and momentum balance are each used to generate different conjugation conditions at the stepped depth discontinuity. The results of implementing the boundary conditions in the perturbative analysis are presented and compared. The effects of the geometry of underwater barriers on the wave propagation are demonstrated (Received September 14, 2014)