

Numerical Solution of Boussinesq Systems Modeling Two-Way Water Wave Propagation

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Key words: Water waves, Boussinesq Systems, Solitary Waves.

We review recent progress on the theory and numerical analysis of Boussinesq systems of water wave theory. These systems model two-way propagation of nonlinear dispersive waves in two and three spatial dimensions. Emphasis will be given on the interactions of their solitary-wave solutions and on initial-boundary- value problems for these systems.