Stability of resonant traveling water waves

Benjamin Akers

Department of Mathematics, Statistics, and Computer Science, University of Illinois - Chicago, Chicago, IL 60657, U.S.A.
Tel: 312-4132329, email: akers@math.uic.edu

Abstract:

A boundary perturbation algorithm will be presented for computing the spectral data of traveling wave solutions to the potential flow equations. This algorithm extends the transformed field expansion technique of Nicholls (2002) to compute the spectral stability of resonant waves, for example Wilton Ripples.

References:
   1. Nicholls, D.P., J. Fluid Mech., 624, 339-360 (2002)
   2. Nicholls, D.P., J. Nonlinear Sci., 17, 369-397 (2007)