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Robert L. Pego* (rpego@cmu.edu), **Tetsu Mizumachi** and **José Raúl Quintero**. *Asymptotic stability of solitary waves in a water wave model with indefinite variational structure*. Preliminary report.

We study asymptotic stability properties for solitary waves in the Benney-Luke model equation for water waves. One feature that this model shares with the full water wave problem is that solitary wave profiles are critical points of an energy-momentum functional that is infinitely indefinite and not useful for estimates. (Received September 21, 2011)