1011-35-339 **Robert L Pego*** (`rpego@cmu`), Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA 15213. *Asymptotic stability of solitary waves in models of water wave dynamics.* Preliminary report.

In faithful models of water wave dynamics, solitary wave profiles are critical points of an invariant energy-momentum functional with infinitely indefinite second variation. I will discuss progress in proving asymptotic stability for small-energy solitary waves in models of this type, relying on the convexity of the Hamiltonian energy. (Received August 30, 2005)