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Box 68530, Rio de Janeiro, RJ CEP: 21945, Brazil. *Stability of Hirota-Satsuma Solitary Waves.*

Hirota and Satsuma have derived a non-local integro-differential equation as a model for surface water waves. This evolution equation has solitary-wave solutions akin to those of the better known Korteweg-de Vries and BBM equations. By analogy with these equations, one expects the Hirota-Satsuma solitary waves to be stable. Theory leading to exactly this conclusion will be outlined. (Received December 08, 2009)