

EXISTENCE AND STABILITY OF PERIODIC SOLITARY WAVES FOR A CLASS OF DISPERSIVE EQUATIONS.

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We use variational theory of orbital stability to obtain a method of orbital stability that can be applied to classes of dispersive equations, which include Korteweg-de Vries type equations and nonlinear Schrödinger equations. An important feature of the method is that it can be applied (using numerical approaches) to problems where the waves are not known explicitly. As applications we study the orbital stability of periodic waves of the 3–Korteweg-de Vries and logarithmic Schrödinger equations. This is a joint work with F. Natali (DM-UEM).

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