



SEMINÁRIO DE EQUAÇÕES DIFERENCIAIS

Well-posedness for multicomponent Schrödinger-gKdV systems and stability of solitary waves with prescribed mass

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Resumo: In this talk we discuss the well-posedness issues of the associated initial value problem, the existence of nontrivial solutions with prescribed L^2 -norm, and the stability of associated solitary waves for two classes of coupled nonlinear dispersive equations. The first model describes the nonlinear interaction between two Schrödinger type short waves and a generalized Korteweg-de Vries type long wave and the second one describes the nonlinear interaction of two generalized Korteweg-de Vries type long waves with a common Schrödinger type short wave. The results here extend many of the previously obtained results for two-component coupled Schrödinger-Korteweg-de Vries systems.