

STABILITY OF STANDING WAVES FOR NLS MODELS WITH POINT INTERACTIONS

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ABSTRACT. The aim of this talk is to demonstrate the effectiveness of extension theory for symmetric operators in the investigation of the stability of standing waves for semi-linear Schrödinger equations with δ - and δ' -interaction. In particular, we obtain new results associated to the one-dimensional logarithmic Schrödinger equation with a δ -interaction. Our stability approach relies on the abstract theory by Grillakis, Shatah and Strauss for Hamiltonian systems which are invariant under a one-parameter group of operators.

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