

# STABILITY OF KINKS IN ONE-DIMENSIONAL KLEIN–GORDON EQUATIONS

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Kinks are topological solitons, which appear in (nonlinear) one-dimensional Klein–Gordon equations, the  $\phi^4$  and Sine-Gordon equations being the most well-known examples. I will present new results which give asymptotic stability for kinks, with an optimal decay rate, in some cases. The proof relies on the distorted Fourier transform associated to the linearized equation around the kink; this method should be of interest for more general soliton stability problems. This is joint work with Fabio Pusateri.