

Kink dynamics in the ϕ^4 model: asymptotic stability in the odd space

Michal Kowalczyk

Universidad de Chile
kowalczy@dim.uchile.cl

In this talk I will discuss the following nonlinear wave equation

$$\phi_{tt} - \phi_{xx} = \phi(1 - \phi^2),$$

which is known as the one dimensional ϕ^4 model. The main result I will describe is the asymptotic stability of the kink $H(x) = \tanh(\frac{x}{\sqrt{2}})$ in the space of odd functions.