

Nonlinear Dirac Equation: Spectral Stability of Solitary Waves

Nabile Boussaïd, Andrew Comech

9781470443955

- Introduction
- Distributions and function spaces
- Spectral theory of nonselfadjoint operators
- Linear stability of NLS solitary waves
- Solitary waves of nonlinear Schrödinger equation
- Limiting absorption principle
- Carleman–Berthier–Georgescu estimates
- The Dirac matrices
- The Soler model
- Bi-frequency solitary waves
- Bifurcations of eigenvalues from the essential spectrum
- Nonrelativistic asymptotics of solitary waves
- Spectral stability in the nonrelativistic limit