

Twisted integral operators: spectral stability. An overview.

Gheorghe Nenciu (IMAR, Bucharest)

Abstract: For a large class of twisted integral operators (including resolvents of magnetic Schrödinger operators with uniformly bounded magnetic field, Harper-type operators and twisted convolutions) we discuss their spectral stability as the twisting parameter varies.

The main results are that if the off-diagonal decay of integral kernels is strong enough, then the Hausdorff distance is $\frac{1}{2}$ -Hölder continuous and spectrum edges are Lipschitz continuous up to a logarithmic factor.

In addition, if the twisting phase corresponds to a constant magnetic field, then the spectrum edges are Lipschitz continuous.