

Abstract

ROBERT, Didier (Nantes)

“Propagation of wave packets, Herman-Kluk propagators and codimension one crossings”

We construct a Hermann-Kluk type propagator for approximating the solution of a semi-classical system of Schrödinger equations. We consider the case of a data localized along an isolated mode and the situation where this mode intersects smoothly with another one. This relies on the precise study of the propagation of coherent states through codimension one eigenvalue crossings and on Gaussian initial value representation of the initial data.

This is a joint work, in progress, in collaboration with Clotilde Fermanian-Kammerer and Caroline Lasser.