Local decay for time period Schrödinger equations

Kenji Yajima

Department of Mathematical Sciences, University of Tokyo

We consider Schroedinger equations with potentials which are 2π periodic in time and decay suitably at spatial inifinity. Assume that the Floquet operator $U(2\pi,0)$ does not have eigenvalues except 1. We show that, for suitably decaying initial states, the solution has an asymptotic expansion as $t\to\infty$, extending the results of Jensen-Kato and Murata. This is a joint work with A. Galtbayar and A. Jensen.