

Abstract

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“Wave packet transform and its application to Schrödinger”

In this talk, we introduce wave packet transform with time dependent wave packet and apply it to Schrödinger equations. Taking suitable time dependent wave packet, we can transform Schrödinger equations to first order partial differential equations with remainder term, which is easy to solve or to transform integral equations. Using this formula, we discuss the problem to determine singularities of solutions to Schrödinger equations by the initial functions. More precisely, we determine the wave front set of the solutions by the initial functions.