

On unique continuation for Schrödinger operators

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Abstract

We are interested in the following question: a solution of the linear time dependent Schrödinger equation vanishing in a small open set during a small time does it vanish everywhere? In the case where the operator includes a potential the answer to this question depends on its regularity. We will present a result under the assumption that the potential has a Gevrey 2 regularity with respect to time. This relaxes the analyticity assumption known previously. This is a joint work with Camille Laurent and Matthieu Léautaud.