

Dispersive estimates for magnetic Schrödinger and Klein-Gordon equations

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Abstract

We obtain the dispersive long-time decay in the weighted Sobolev norms for solutions of 3D Schrödinger and Klein-Gordon equation with magnetic and scalar potentials. The decay extends the results of Jensen and Kato for the Schrödinger equation, and of the authors for the wave and Klein-Gordon equations with scalar potentials. For the proof we develop the spectral theory of Agmon, Jensen and Kato and minimal escape velocity estimates of Hunziker, Sigal and Soffer.

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