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Resolvent estimates for the magnetic Schrödinger operator. (English) Zbl 1304.47004

Anal. PDE 7, No. 7, 1639-1648 (2014).

Summary: We prove optimal high-frequency resolvent estimates for self-adjoint operators of the form

$$G = -\Delta + ib(x) \cdot \nabla + i\nabla \cdot b(x) + V(x)$$

on $L^2(\mathbb{R}^n)$, $n \geq 3$, where $b(x)$ and $V(x)$ are large magnetic and electric potentials, respectively.

MSC:

47A10 Spectrum, resolvent
47B38 Linear operators on function spaces (general)
35J10 Schrödinger operator, Schrödinger equation

Keywords:

magnetic potential; resolvent estimates