

Mathematics > Analysis of PDEs

L^p - L^q estimates for Electromagnetic Helmholtz equation

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In space dimension $n \geq 3$, we consider the electromagnetic Schrödinger Hamiltonian $H = (\nabla - iA(x))^2 - V$ and the corresponding Helmholtz equation $(\nabla - iA(x))^2 u + u - V(x)u = f$ in \mathbb{R}^n . We extend the well known L^p - L^q estimates for the solution of the free Helmholtz equation to the case when the electromagnetic hamiltonian H is considered.

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