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"Dispersive estimates for the three-dimensional Schroedinger equation."

ABSTRACT:

The three-dimensional Schrödinger propagator  $e^{itH}$ ,  $H = -\Delta + V$ , maps  $L^1(\mathbb{R}^3)$  to  $L^\infty(\mathbb{R}^3)$  provided the (real-valued) potential satisfies two conditions: An integrability condition regulating the singularities and decay of  $V$ , and a zero-energy spectral condition on  $H$ . In particular, almost any potential which is smaller than  $C(1 + |x|)^{-2}$  is admissible.