

Dispersive estimates for the Schrödinger equation

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Abstract. We prove optimal (that is, without loss of derivatives) dispersive estimates for the Schrödinger group $e^{it(-\Delta+V)}$ for a class of real-valued potentials $V \in C^k(\mathbf{R}^n)$, $V(x) = O(\langle x \rangle^{-\delta})$, where $n = 4, 5$, $k > (n - 3)/2$, $\delta > 3$ if $n = 4$ and $\delta > 5$ if $n = 5$. This is a joint work with F. Cardoso and C. Cuevas.