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Marius Beceanu and Michael Goldberg^{*} (Michael.Goldberg^{@uc.edu}), Department of Mathematical Sciences, 839 Old Chem, Cincinnati, OH 45221-0025. A Schrödinger Dispersive Estimate in R³ with Singular Potentials. Preliminary report.

We prove a dispersive estimate on the linear propagator e^{-itH} for a family of Schrödinger operators $H = -\Delta + V(x)$. The admissible class of potentials is invariant with respect to the Laplacian's natural inverse-square scaling law, and includes singular examples where V(x) is a measure rather than a function. (Received January 22, 2010)