

1032-35-68

Michael Goldberg* (mikeg@math.jhu.edu), Department of Mathematics, Johns Hopkins University, 3400 N. Charles St., Baltimore, MD 21218. *The Schrödinger and Floquet equations with $L^{n/2}$ potentials.*

We prove Strichartz estimates for the Schrödinger operator $H = -\Delta + V(t, x)$ with time-periodic complex potentials V belonging to the scaling-critical space $L_x^{n/2} L_t^\infty$ in dimensions $n \geq 3$. This is done directly from estimates on the resolvent rather than using dispersive bounds, as the latter generally require a stronger regularity condition than what is stated above. In typical fashion, we project onto the continuous spectrum of the operator and must assume an absence of resonances. Eigenvalues are permissible at any location in the spectrum, including at threshold energies, provided that the associated eigenfunction decays sufficiently rapidly. (Received August 09, 2007)