ABSTRACTS 1.2



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Strichartz estimates in the presence of an oscillating electromagnetic field

We prove Strichartz estimates for the Schrödinger operator

$$H = -\Delta + V(t, x) + i\mathbf{A}(t, x) \cdot \nabla$$

with time-periodic short range potentials in dimensions  $n \geq 3$ . This is done directly from estimates on the resolvent of the Floquet operator  $i\partial_t + H$  rather than using dispersive bounds, as the latter are unknown even in the time-independent case. 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 within the spectrum, including at threshold energies, provided that the associated eigenfunction decays sufficiently rapidly.