

Negative spectrum of Schrödinger operators with oscillating potentials

Wednesday, October 11, 2023 9:00 AM (1 hour)

For a Schrödinger operator $-\Delta - \alpha V$, the decay of the potential V towards infinity determines the finiteness of its negative spectrum. In the particular case where V is asymptotically homogeneous of degree -2, the size of the coupling constant α distinguishes between the generation of finitely or infinitely many negative eigenvalues. In this talk we will show that a similar property holds when the potential has slower decay but oscillates at infinity.

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