

COMPLETENESS OF EIGENFUNCTIONS FOR SCHRÖDINGER OPERATORS WITH COMPLEX POTENTIALS

Y. ALMOG

For $\alpha > 0$ consider $A_\alpha := -d^2/dx^2 + i|x|^\alpha$ in \mathbb{R} (or \mathbb{R}_+ with Dirichlet boundary condition at 0). If $\alpha > 2/3$, then it is known that the eigenfunctions form a complete system.

Open problem: Is the same true for $0 < \alpha \leq 2/3$?