1048-81-30   **Jason Holt*** (`jholt@mailbox.sc.edu`), PO Box 889, Lancaster, SC 29721. *Generalizations of the Simon-Spencer Theorem for 1-D Schödinger Operators.*

Let $H = -d^2/dx^2 + V$ be the 1-D Schrödinger operator on the half axis with an unbounded potential V and Dirichlet boundary condition at the origin. We present joint work with A. Gordon and S. Molchanov which gives sufficient conditions on the potential V for the absence of the absolutely continuous spectrum. These conditions assume only that $V \geq 0$ and involve only local L^1 norms of V, thereby generalizing the fundamental result of Simon and Spencer. We also present an example showing that these local L^1 conditions, together with the condition of essential self-adjointness of H, cannot guarantee the absence of absolutely continuous spectrum. (Received December 15, 2008)

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