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Chris A Marx* (cmarx@oberlin.edu), Department of Mathematics, Oberlin College, 10 N Professor Street, Oberlin, OH 44074, and **Peter D Hislop**. *A spectral shift type estimate and its applications to the density of states measure for random Schrödinger operators.*

Using the Helffer-Sjöstrand formula, we prove a spectral shift type estimate for a one-parameter family of self-adjoint operators $H_\lambda = H_0 + \lambda T_1$ which characterizes the parameter (λ)-dependence of the function $\lambda \mapsto \text{Tr}(T_2 f(H_\lambda) T_2)$, for compactly supported Lipschitz functions f . Here, T_1 and T_2 are assumed to be positive and trace-class relative to powers of the resolvent of H_λ and H_0 is self-adjoint and lower semi-bounded. We apply this to random Schrödinger operators both on graphs and on \mathbb{R}^d to prove that, in both cases, the density of states measure is Lipschitz continuous in the underlying probability distribution.

This talk is based on joint work with Peter Hislop (University of Kentucky). (Received September 10, 2019)