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Marius V Ionescu* (ionescu@usna.edu), United States Naval Academy, Department of Mathematics, 572C Holloway Road, Chauvenet Hall, Annapolis, MD 21402, and **Luke G Rogers** and **Kasso Okoudjou**. *Asymptotics of eigenvalue clusters for generalized Schrödinger operators.*

A generalized Schrödinger operator with continuous potential χ on the Sierpinski gasket is an operator of the form $H = p(-\Delta) + [\chi]$, where $p : (0, \infty) \rightarrow \mathbb{R}$ is a measurable function. In this talk we present some results on the asymptotic behavior of spectra of generalized Schrödinger operators with continuous potentials and continuous p , generalizing some results of Okoudjou and Strichartz. Our proof is based on the study of the asymptotics of the trace of continuous functions of pseudo-differential operators. Our results are the fractal analogue of results first observed by Weinstein and Guillemin for Schrödinger operators on compact Riemannian manifolds. This talk is based on joint work with Kasso Okoudjou and Luke Rogers. (Received August 13, 2015)