1154-42-513 **Kasso A Okoudjou*** (kasso@math.umd.edu), 77 Massachusetts Ave, Cambridge, MA 02139.

Spectral properties of pseudodifferential operators on fractals.

The spectral analysis of the Laplacian on a class of self-similar fractals which includes the Sierpinski gasket (SG) has resulted in a rich body of work that is part of the theory of harmonic analysis on fractals. Some of the important features of this fractal Laplacian include the existence of high multiplicity eigenvalues along with large gaps in its spectrum. An interesting consequence of some of these features is the fact Fourier series on fractals have "nicer" convergence properties. In this talk, I will show how these features can be used to give descriptions of the spectra of pseudodifferential operators on fractals. In particular, I will consider some Schrödinger operators on SG. (The talk is based on joint work with M. Ionescu, L. Rogers, and R. Strichartz.) (Received September 05, 2019)