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Spectral Triples and Fractal Geometry.

The spectral triples of noncommutative geometry are a useful tool in finding algebraic formulations for geometric concepts. Of great interest in fractal geometry are the concepts of dimension, geodesic distance, and measure. We will see how one can use spectral triples to recover these concepts for fractal sets like the Sierpinski Gasket and the Hanoi attractors. Also of interest is the use of spectral triples to recover the energy forms from the study of analysis on fractals. (Received August 13, 2016)