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Frank Alexander Kloster* (kloster@math.ucr.edu). *Spectral Triples for the Sierpinski Gasket*. Preliminary report.

Spectral triples are one of the major objects of study in noncommutative geometry, and are used to encode geometric information into the language of operator algebras. Here, I will be constructing a spectral triple for the Sierpinski gasket constructed by F. Capriani, D. Guido, T. Isola and J. Sauvageot. From this construction, I will derive the standard Dirichlet form for the gasket, discuss some of the constraints and generalizations. In particular, I will compare it to a spectral triple constructed before by E. Cristensen, C. Ivan and M.L. Lapidus. In addition, I will be presenting some of my own work using this triple. (Received August 14, 2016)