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Therese Landry* (tland004@ucr.edu). *Propinquity, Spectral Triples, and the Sierpinski Gasket.*

One of the fundamental tools of noncommutative geometry is Connes' spectral triple. Michel Lapidus, Erik Christensen, and Cristina Ivan developed a spectral triple for the Sierpinski gasket fractal that recovers the Hausdorff dimension, the geodesic metric, and the $\log_2 3$ -dimensional Hausdorff measure. The Gromov-Hausdorff distance is an important tool of Riemannian geometry, and building on the earlier work of Marc Rieffel, Frederic Latremoliere introduced a generalization of the Gromov-Hausdorff distance to quantum compact metric spaces. This new technique in noncommutative geometry- the Gromov-Hausdorff propinquity- was recently extended by Frederic Latremoliere to the setting of spectral triples. This talk will develop ideas underlying joint work in progress with Michel Lapidus and Frederic Latremoliere on how the Lapidus, Christensen, and Ivan spectral triple on the Sierpinski gasket can be compared with spectral triples on its n th level approximations via the Gromov-Hausdorff propinquity. (Received September 03, 2019)