

1072-60-102

Benjamin Steinhurst* (steinhurst@math.cornell.edu). *Brownian motion on non-self-similar Sierpinski carpets*. Preliminary report.

This class non-self-similar carpets were by MacKey, Tyson, and Wildrick to serve show that metric measure spaces which are embedable in Euclidean space but which have no interior can support Poincare inequalities. A consequence of the Poincare inequality is an almost everywhere cotangent bundle with associated Dirichlet form and Brownian motion. Their work relies on assuming that the chosen construction produces a fractal with positive 2–Lebesgue measure. In this talk we will address the construction of a Brownian motion in the case where the 2–Lebesgue measure is zero. (Received June 22, 2011)