

1145-42-1891 **Calvin F Hotchkiss*** (hotchkis@udel.edu). *Fourier Bases on the Skewed Sierpinski Gasket.*

We consider a certain iterated function system, whose invariant set is a skewed Sierpinski gasket, $S = \{(x, y) \in \mathbb{R}^2 : x \in C_3, y \in C_3, x + y \in C_3\}$, where C_3 is the standard middle-thirds Cantor set. We show the existence of several sequences of exponentials which form orthonormal bases on $L^2(S)$, and discuss similar results for related fractals. (Received September 24, 2018)