1125-42-1326 **Calvin Hotchkiss*** (`hotchkis@iastate.edu`) and **Eric S Weber**. *Fourier Bases on the "Skewed Sierpinski Gasket".*

We consider a certain iterated function system, whose invariant set is a skewed Sierpinski gasket, $\mathcal{S}$. The set $\mathcal{S}$ has the standard middle-thirds Cantor set as its trace on both the X and Y axes. We show the existence of several sequences of exponentials which form an orthonormal basis on $L^2(\mathcal{S})$. Results on $\mathcal{S}$ cast light on the problem of finding a Fourier frame for that Cantor set. (Received September 16, 2016)