962-28-529 **Denise A. Szecsei*** (dszecsei@stetson.edu), Department of Mathematics/Computer Science, Elizabeth Hall, Stetson University, De Land, FL 32720. *A Convolution Property of Some Measures With Self-Similar Fractal Support.*

We define a class of measures having the following properties: 1) the measures are supported on self-similar fractal subsets of the unit "cube" $I^M = [0,1)^M$, with 0 and 1 identified as necessary; 2) the measures are singular with respect to normalized Lebesgue measure m on I^M; 3) the measures have the convolution property that $\mu * L^p \subseteq L^q$ for some $\epsilon = \epsilon(p) > 0$ and all $p \in (1, \infty)$. We will show that if $\left(\frac{1}{p}, \frac{1}{q}\right)$ lies in the triangle with vertices $(0,0)$, $(1,1)$ and $\left(\frac{1}{2}, \frac{1}{3}\right)$, then $\mu * L^p \subseteq L^q$ for any measure μ in our class. (Received September 15, 2000)