1011-30-310 **Jonas Azzam*** (jonasazzam@hotmail.com). *Energy Measures on the Sierpinski Gasket.*

Given an energy form on the set of functions defined on the Sierpinski Gasket (SG), we define a harmonic function to be a function that has minimum energy given fixed boundary values (i.e. its values at the corners). For a harmonic function h, we may define a measure on SG in terms of the energy of the harmonic function when restricted to a subset of SG. It turns out that, while these energy measures are defined quadratically in terms of h, they can still be modeled by linear transformations on SG. (Research carried out at an REU at Cornell University.) (Received August 30, 2005)