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Baris Evren Ugurcan* (beu4@cornell.edu), University of Western Ontario, Department of Mathematics, London, Ontario N6A 5B7, Canada. *Boundary value and trace problems on the Sierpinski Gasket.*

We talk about boundary value problems and trace theorems on the Sierpinski Gasket (SG). In the first part, after introducing a trace space on the line halving the SG (following several previous work by Strichartz et al.), we give L^p -estimates for $p > 1$ for the restriction and extension operators. In the second part, by using a wavelet-type basis, we give a solution to a biharmonic boundary value problem and study the associated regularity theory. At the end, we talk about extension of these methods to the n -polyharmonic case, possibly by also bringing in tools from stochastic processes. (Received January 28, 2016)