

REAL-VALUED FUNCTIONS OF FINITE ENERGY ON THE
SIERPINSKI GASKET

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Abstract. We present, including all necessary computation, the harmonic extension procedure on the Sierpinski gasket in the n -dimensional Euclidean space. Thus we complete the results of [10] where this procedure is performed only in the cases $n \in \{1, 2\}$. Moreover, we derive from this procedure certain properties of real-valued functions of finite energy defined on the Sierpinski gasket. We stress on the Hölder continuity, since we haven't found in the literature a proof for it in the case $n \geq 3$.

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Key words. Sierpinski gasket, harmonic function on the Sierpinski gasket, harmonic extension procedure, energy form on the Sierpinski gasket.

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