

1062-35-111

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Lexington, KY 40506. *p* Harmonic Measure in Space. Preliminary report.

In this talk I will discuss recent work with co-authors concerning the Hausdorff dimension of a measure associated with a positive p harmonic function vanishing on the boundary of a sufficiently flat Reifenberg domain in Euclidean n space. We show that the dimension of this measure is at most $n - 1$ when p is no less than n . Using a method of Thomas Wolff we also construct examples for p larger than one of Wolff snowflakes - p harmonic functions, for which the Hausdorff dimension of the corresponding measure can be estimated. (Received August 01, 2010)