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**Murat Akman\*** ([murat.akman@uky.edu](mailto:murat.akman@uky.edu)), Department of Mathematics, University of Kentucky, Lexington, KY 40506, and **John Lewis** and **Andrew Vogel**. *Hausdorff dimension of a certain measure*. Preliminary report.

In the first part of my talk I will discuss the Hausdorff dimension of a measure related to a positive weak solution of a certain partial differential equation in a simply connected domain. Our work generalizes work of Lewis and coauthors when the measure is  $p$ -harmonic and also for  $p = 2$ , the well known theorem of Makarov regarding the Hausdorff dimension of harmonic measure relative to a point in a simply connected domain. In the second part of my talk I will present a recent result in the study of Hausdorff dimension of  $p$ -harmonic measure for  $p \geq n$  when  $p$ -harmonic function is defined on an open subset of  $\mathbb{R}^n$  and vanishing on a portion of boundary of this open set. (Received July 19, 2013)