

# On the Dimension of $p$ -Harmonic Measure and Related Topics

John Lewis

## Abstract

In this talk we discuss recent work with coauthors concerning the dimension of  $p$ -harmonic measure for quasicircles in two dimensions and for Wolff snowflakes in higher dimensions. Proofs in higher dimensions use recent boundary Harnack inequalities of Lewis and Nyström for  $p$ -harmonic functions in Lipschitz and Reifenberg flat domains. Thus these inequalities will also be discussed. Finally if there is enough time, we will introduce codimension larger than one snowflakes for certain  $p > 2$  and make some wild conjectures.