Anders Pelander* (pelander@math.uu.se), Department of Mathematics, Uppsala University, P.O. Box 480, 75106 Uppsala, Sweden. Local behavior of harmonic and smooth functions on fractals.

We discuss some properties of the local behavior of harmonic functions on fractals, and to what extent these properties hold for larger classes of functions with certain degree of smoothness. These questions have strong relations to the theory of products of random matrices. The talk is on joint work with A. Teplyaev. (Received August 28, 2006)