1022-45-93 **Dorina Mitrea*** (`dorina@math.missouri.edu`), Department of Mathematics, 202 Math Sci Bldg, University of Missouri-Columbia, Columbia, MO 65211. *Applications of Clifford Analysis to the regularity of harmonic Green potentials in Lipschitz domains.*

A well known result of Dahlberg asserts that, in a Lipschitz domain, the gradient of the harmonic Dirichlet Green potential maps L^p into L^q for $1 < p < n$ and $1/q = 1/p - 1/n$. In this talk we will explain how Clifford Algebras can be used to prove extensions of Dahlberg's result to the Sobolev scale instead of the Lebesgue scale and to the case of Neumann boundary condition instead of the Dirichlet boundary condition. (Received September 10, 2006)