

1086-35-1769

Ariel Barton* (barto106@math.umn.edu), School of Mathematics, University of Minnesota, 206 Church Street, S.E., Minneapolis, MN 55455, and **Svitlana Mayboroda** (svitlana@math.umn.edu), School of Mathematics, University of Minnesota, 206 Church Street, S.E., Minneapolis, MN 55455. *The Dirichlet problem for higher order equations in composition form.*

In 1986, Dahlberg, Kenig and Verchota proved that unique solutions to the Dirichlet problem for the bilaplacian Δ^2 , with L^2 boundary data, exist in Lipschitz domains. After applying a change of variables, the bilaplacian Δ^2 becomes a fourth-order operator of the form $L^*(aL)$, where L is a second-order divergence-form elliptic operator and a is a scalar-valued function. We construct solutions to the Dirichlet problem for some other operators of the form $M^*(aL)$. (Received September 24, 2012)