1057-35-284 **Ariel Elizabeth Barton*** (abarton@math.uchicago.edu), Department of Mathematics, University of Chicago, 5734 S. University Ave., Chicago, IL 60637. *The Dirichlet and Neumann problems for elliptic partial differential equations with almost-real coefficients.*

Given a Lipschitz domain $\Omega \subset \mathbf{R}^2$ and a real, elliptic 2×2 coefficient matrix $A(x)$ which depends only on one of the two coordinates, it is possible to solve $\operatorname{div} A\nabla u = 0$ in Ω with Dirichlet boundary data $f \in L^p(\partial\Omega)$ for $p < \infty$ large enough (Kenig, Koch, Pipher and Toro, Adv. Math. **153**, 2000) or for Neumann boundary data $g \in L^p(\partial\Omega)$ for $p > 1$ small enough (Kenig and Rule, Trans. Amer. Math. Soc. **361**, 2009).

I generalize these results to complex coefficient matrices A which satisfy the same conditions and are near in L^∞ to some real coefficient matrix A_0. (Received January 25, 2010)