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Ariel Elizabeth Barton* (aebarton@math.purdue.edu), Department of Mathematics, 150 North University Street, West Lafayette, IN 47907-2067. *Elliptic PDE and Carleson-measure estimates.*

Let u solve an elliptic PDE in a Lipschitz domain in the plane. Suppose that ∇u satisfies a Carleson-measure condition. I will show that, if the coefficients of the elliptic PDE have small imaginary part and are independent of one of the coordinates, then the boundary values of u exist and lie in BMO . (Received September 20, 2010)