1092-35-212 Justin Lee Taylor* (jtaylor52@murraystate.edu). The Green Function for Elliptic Systems in Two Dimensions.

We construct the fundamental solution for a divergence form elliptic system in two dimensions with bounded and measurable coefficients. We consider the operator with mixed boundary conditions in a Lipschitz domain and require a non-tangential accessibility condition on the set where we specify Dirichlet boundary data. We show that the fundamental solution for this operator is in a variant of the space of functions of bounded mean oscillation. We proceed to show pointwise estimates including a logarithmic pointwise bound. This is joint work with Seick Kim and Russell Brown. (Received August 09, 2013)