1046-35-1096 KO WOON UM* (kum@math.uiowa.edu), 14 Maclean hall, Iowa city, IA 52242. Elliptic Equations with BMO Coefficients with singularity in Reifenberg flat Domains. Preliminary report.

In this talk we consider the inhomogeneous Dirichlet problems concerning divergence form elliptic equation with optimal regularity requirement on the domain. The goal is to obtain $W^{1,p}$ theory allowing the principal coefficient to have singularity along certain subdomain. Our main tools are covering argument, Hardy-Littlewood maximal function and the compactness method. (Received September 14, 2008)