

1125-35-1949 **Irina Mitrea*** (imitrea@temple.edu), 640 Wachman Hall, 1805 N. Broad St., Philadelphia, PA 19122. *The Dirichlet problem for elliptic systems with data in Köthe function spaces.*

In this talk I will discuss well-posedness results for the Dirichlet problem for second-order, homogeneous, elliptic systems, with constant complex coefficients, in the upper half space, with boundary data from Lebesgue spaces, variable exponent Lebesgue spaces, Lorentz spaces, Zygmund spaces, as well as their weighted versions. A key tool in this analysis is establishing boundedness of the Hardy-Littlewood maximal operator on appropriate Köthe function spaces. This is joint work with Dorina Mitrea, Marius Mitrea and Jose Maria Martell. (Received September 19, 2016)