1139-42-551   **Marius Mitrea*** (`mitream@missouri.edu`), University of Missouri, Department of Mathematics, Columbia, MO 65211. *Fatou-Type Results for Elliptic Systems in Uniformly Rectifiable Domains.*

In this talk, I will be presenting a new approach for establishing quantitative Fatou-type theorems for null-solutions of an injectively elliptic first-order (homogeneous, constant complex coefficient) system of differential operators in an arbitrary uniformly rectifiable domain in the n-dimensional Euclidean space, assuming that the nontangential maximal operator is p-th power integrable (with respect to the Hausdorff measure) for some integrability exponent larger than $(n-1)/n$. Such a result has a wide range of applications, including the theory of Hardy spaces associated with injectively elliptic first-order systems in uniformly rectifiable domains. This new approach also yields Fatou-type results for the gradient of null-solutions of elliptic second-order systems in arbitrary uniformly rectifiable domains. (Received February 19, 2018)