1147-35-145 **Murat Akman*** (murat.akman@uconn.edu), 341 Mansfield Road, Unit 1009, University of Connecticut, Department of Mathematics, Storrs, CT 06280. *Perturbations of elliptic operators on non-smooth domains.* Preliminary report.

In this talk, we study perturbations of elliptic operators on domains with rough boundaries. In particular, we focus on the following problem: suppose that we have "good estimates" for the Dirichlet problem for a uniformly elliptic operator L_0, under what optimal conditions, are those good estimates transferred to the Dirichlet problem for uniformly elliptic operator L which is a "perturbation" of L_0?

We prove that if discrepancy between L_0 and L satisfies certain smallness assumption then the elliptic measure ω_L corresponding to L is in the reverse Hölder class with exponent 2 with respect to the elliptic measure ω_{L_0} corresponding to L_0 when the domain is 1-sided NTA satisfying the capacity density condition. Our work extends classical results of Fefferman, Kenig, and Pipher in Lipschitz domains, and Milakis, Pipher, and Toro in chord-arc domains to 1-sided NTA domains satisfying the CDC.

This is a joint work in progress with Steve Hofmann, José María Martell, and Tatiana Toro. (Received January 02, 2019)