1163-AD-849   **Dorina Mitrea*** (`dorina_mitrea@baylor.edu`), **Irina Mitrea** and **Marius Mitrea**. *A Sharp Divergence Theorem and Applications to Complex Analysis.*

In this talk I will discuss a version of the Divergence Theorem for vector fields defined in rough domains satisfying minimal conditions. As applications of this theorem I will prove a very general version of the Cauchy-Pompeiu representation formula and of the classical Residue Theorem in complex analysis. (Received September 13, 2020)