1121-44-177 **Benjamin Jaye*** (bjaye@kent.edu), Mathematical Sciences Building, Kent State University, Kent, OH 44240. *Non-oscillatory conditions which govern the boundedness of Calderón-Zygmund operators.*

We shall describe forthcoming joint work with Fedor Nazarov and Xavier Tolsa which gives a necessary and sufficient conditions on a measure μ in $\mathbb{R}^d$ for the boundedness of all s-dimensional Calderón-Zygmund operators ($s \in (0, d)$) in $L^2(\mu)$ in terms of energy conditions involving modifications of Wolff potentials. The results generalize work by David and Semmes, and Mattila and Preiss, concerning the behaviour of various classes of singular integral operators on Ahlfors-David regular sets. (Received July 18, 2016)