Rebekah Y. Jones* (jones3rh@mail.uc.edu). *Modulus of sets of finite perimeter and quasiconformal maps between metric spaces of globally $Q$-bounded geometry.

In Euclidean space, it is well-known that quasiconformal maps quasi-preserve the $n$-modulus of curves. Kelly also showed that the $n/(n-1)$-modulus of “surfaces” is quasi-preserved. We generalize this result to the setting of complete, Ahlfors $Q$-regular metric spaces supporting a 1-Poincaré inequality. In fact, we consider a larger class of so-called surfaces, namely the measure theoretic boundaries of sets of finite perimeter, and so our results are new even in Euclidean space. This talk is based on joint work with Panu Lahti and Nageswari Shanmugalingam. (Received July 07, 2018)