1148-30-22 **Dimitrios Ntalampekos*** (dimitrios.ntalampekos@stonybrook.edu), Institute for Mathematical Sciences, Stony Brook University, Stony Brook, NY 11794, and **Matthew Romney**. *Inverse absolute continuity of quasiconformal mappings.*

This talk is based on joint work with Matthew Romney. The problem of inverse absolute continuity, due to Gehring, asks whether a quasiconformal mapping $f\colon \mathbb{R}^{n+1} \to \mathbb{R}^{n+1}$, restricted to a smooth hypersurface Z in $\mathbb{R}^{n+1}$, always maps sets of positive Hausdorff n-measure to sets of positive Hausdorff n-measure. We show, by construction, that this may fail to be the case when $n = 2$: there exists a quasiconformal mapping $f\colon \mathbb{R}^3 \to \mathbb{R}^3$ for which a Borel set $E \subset \mathbb{R}^2 \times \{0\} =: Z$ of positive 2-measure is mapped to a set $f(E)$ of 2-measure zero. (Received January 05, 2019)