1128-53-168 **Enrique G Alvarado** (ealvarado9611@gmail.com), Pullman, WA 99163, and **Kevin R Vixie*** (vixie@speakeasy.net), Pullman, WA 99163. *A Lower Bound on the Reach of Flat Norm Minimizers.*

One measure of the regularity of a curve in R^2 is called the *reach* of the curve and is equal to the supremum of the radii of the disks that can be rolled around the curve, always touching the curve in exactly one spot. Curves with corners have reach $= 0$ since every ball, no matter how small touches the curve in at least two places. And it is not enough that a curve be C^1 for it to have positive reach – positive reach implies a curve is at least $C^{1,1}$.

In this talk, I will show that the minimizers of the flat norm, introduced earlier in the semester, have positive reach not too much smaller than $1/\lambda$ where λ is the bound on the curvature of the minimizer that is "hard-coded" into the flat norm metric. The proof boils down to a simple comparison argument and some calculations, but, as in most everything in geometric measure theory, there are some details! (Received February 24, 2017)