1147-51-816 **Eden Prywes*** (`eprywes@math.ucla.edu`). *Characterization of Branched Covers with Simplicial Branch Sets.*

A branched covering $f\colon \mathbb{R}^n \to \mathbb{R}^n$ is an open and discrete map. Branched coverings are topological generalizations of quasiregular and holomorphic mappings. The branch set of f is the set where f fails to be locally injective. It is well known that the image of the branch set of a PL branched covering between PL n-manifolds is a simplicial $(n-2)$-complex. I will discuss a recent result that the reverse implication also holds. More precisely, a branched covering with the image of the branch set contained in a simplicial $(n-2)$-complex is equivalent up to homeomorphism to a PL mapping. This result is classical for $n = 2$ and was shown by Martio and Srebro for $n = 3$. This is joint work with Rami Luisto. (Received January 29, 2019)