

1125-51-178

**Barry Minemyer\*** (minemyer.1@osu.edu), Columbus, OH 43210. *Approximating continuous maps by isometries.*

The Nash-Kuiper Theorem states that the collection of  $C^1$ -isometric embeddings from a Riemannian manifold  $M^n$  into  $\mathbb{E}^N$  is  $C^0$ -dense within the collection of all smooth 1-Lipschitz embeddings provided that  $n < N$ . This result is now known to be a consequence of Gromov's more general  $h$ -principle. There have been some recent extensions of the Nash-Kuiper Theorem to Euclidean polyhedra, which in some sense provide a very specialized discretization of the  $h$ -principle. In this talk we will discuss these recent results and provide generalizations to the setting of isometric embeddings of spaces endowed with indefinite metrics into Minkowski space. The new observation is that, when dealing with Minkowski space, the assumption "1-Lipschitz" can be removed. Thus, we obtain results about isometric embeddings that are  $C^0$ -dense within the collection of *all* continuous maps. (Received August 09, 2016)