

Meeting: 1001, Evanston, Illinois, SS 13A, Special Session on Algebraic Topology: Interactions with Representation Theory and Algebraic Geometry

1001-55-179 **Johann K Leida*** (leida@math.wisc.edu), Department of Mathematics, 480 Lincoln Dr.,
Madison, WI 53706-1388. *Orbifolds and Stable Equivariant Homotopy Groups*. Preliminary report.
Adem and Ruan showed that orbifold K -theory splits as a direct sum by identifying it with equivariant K -theory. Tammo tom Dieck split equivariant stable homotopy groups into a similar direct sum. Here, we show that the latter groups are orbifold invariants for global quotients, and are nearly so for quotient orbifolds in general. Along the way, we define *extended orbifold homotopy groups* and see that they are sharper than the orbifold homotopy groups defined by Chen, Moerdijk, and others. (Received August 24, 2004)