1062-05-197 **Edward Swartz*** (ebs22@cornell.edu), Mathematics Dept., Ithaca, NY 14853. *Topology and Combinatorics of linear quotients of spheres.*

Let G be a finite (or compact) group acting linearly on a unit sphere. The classification of such actions is usually well understood via the (real) representation theory of G. In sharp contrast, the topology of the corresponding quotient spaces is very poorly understood. We will survey a few results and questions in this subject of particular interest to the speaker. (Received August 08, 2010)