1041-14-282 **Jarod Alper*** (jarod@math.columbia.edu), Department of Mathematics, Columbia University, 2990 Broadway, New York, NY 10027. *Good moduli spaces for Artin stacks.*

I will introduce the concept of good moduli spaces for Artin stacks, which generalizes Mumford's geometric invariant theory of quotients of schemes by linearly reductive groups. Moduli stacks parameterizing objects with infinite automorphisms (eg. semi-stable vector bundles) often do not admit coarse moduli spaces but may admit good moduli spaces by identifying certain non-isomorphic objects. Some time will be devoted to characteristic p phenomena, including Haboush's theorem and the notion of geometrically reductive group schemes. Applications to the construction of moduli spaces will be discussed. (Received August 12, 2008)