

Abstract

Given a Hamiltonian action on a symplectic manifold, or, a complex reductive group acting on a projective manifold, there are well known symplectic or GIT quotients. We will introduce, in elementary ways, the Hilbert and Chow quotients, and explain their important roles in geometry. Unlike symplectic or GIT quotients, both of which depend on choices, the Hilbert/Chow quotients are canonical.