1043-13-147   **Harm Derksen*** (`hderksen@umich.edu`), 530 Church St, Ann Arbor, MI 48109, and **Gregor Kemper**. *Unipotent group quotients of affine varieties.*

Suppose that a unipotent group U acts regularly on an integrally closed domain R over the field K. Nagata's counterexample to Hilbert's fourteenth problem shows that R^U may not be finitely generated. However, Nagata proved that R^U is isomorphic to an ideal transform of a finitely generated algebra. Geometrically, this means that R^U can be seen as the ring of regular functions on an quasi-affine variety. An algorithm will be presented that can find such a quasi-affine variety explicitly. (Received August 25, 2008)