GREGOR KEMPER, Technical University of Munich
Quotients of connected solvable groups

Geometric invariant theory is concerned with constructing quotients of a variety X by an action of an algebraic group G. This talk deals with the case that G is connected and solvable, and presents an algorithm for producing a nonempty open subset $U \subseteq X$ and a universal geometric quotient of U. The algorithm does not require any Gröbner basis computations, and the quotient is in fact even better than only being universally geometric.