

Algebraic actions of discrete groups: the p -adic method

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With Cantat, we study groups of automorphisms and birational transformations of quasi-projective varieties by p -adic methods. For instance, we show that if $\mathrm{SL}_n(\mathbb{Z})$ acts faithfully on a complex quasi-projective variety X by birational transformations, then $\dim(X)$ is at least $n - 1$ and X is rational if $\dim(X) = n - 1$.