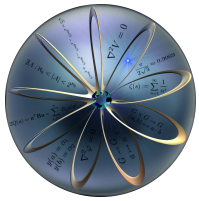

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affine algebraic group

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An *affine algebraic group* over a field k is quasi-affine variety G (a locally closed subset of affine space) over k, which is a equipped with a group such that the multiplication map $m : G \times G \to G$ and inverse map $i : G \to G$ are algebraic.

For example, k is an affine algebraic group over itself with the group law being addition, and as is $k^* = k - \{0\}$ with the group law multiplication. Other common examples of affine algebraic groups are $\mathrm{GL}_n k$, the general linear group over k (identifying matrices with affine space) and any algebraic torus over k.