

Affine varieties in the tangent bundle

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An affine variety in the tangent bundle is a subset of the tangent bundle whose intersection with any tangent space is an affine (in particular vector) subspace, not necessarily of constant dimension, which can be locally described either by vector fields or by differential forms. The local classification of affine varieties is a big tuple of directions of research in local differential geometry, geometric control theory, dynamical systems, and singularity theory. In the talk, the main direction of research, tools, and results will be conceptually characterized.