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Titre : Contact Fano manifolds : pieces of the homogeneous structure coming from geometry

Résumé : Complex contact manifolds generalise real notion, which originates from classical mechanics. I will address the problem of classification of contact Fano manifolds. It is conjectured by LeBrun and Salamon that every such manifold is necessarily homogeneous, strongly related to the Lie algebra structure of a simple Lie group. I will show how the Killing form, the Lie algebra grading and parts of the Lie bracket can be read from the geometry of an arbitrary contact manifold. Minimal rational curves on contact manifolds (or contact lines) and their chains are the essential ingredients for our constructions.