

Special Holonomy and Geometric Structures on Complex Manifolds

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Título do poster:

Symmetric Killing 2-tensors on Riemannian Lie groups.

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Resumo do poster:

Symmetric Killing tensors have been studied for a long time, motivated originally by physical problems. Very fast, they became a subject of interest for geometers. In 2003, U. Semmelmann introduced an appropriate geometrical formalism to study these objects, which allowed to reobtain well known results and advance further in the theory. In 2019, V. del Barco and A. Moroianu, using these new techniques, described the symmetric Killing 2-tensors on 2-step nilpotent Riemannian Lie groups. In addition, they gave a complete characterization of the decomposability of these tensors. In this poster, we discuss their results and present our approach for the problem of fully describing the symmetric Killing 2-tensors on almost abelian Riemannian Lie groups and studying their decomposability.