

Introduction to generalized Kähler geometry

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Abstract

Generalized Kähler geometry is a synthesis of Kähler geometry and bi-Hermitian torsion geometry. I will describe some basic properties of this structure, and indicate how it can be used to settle outstanding problems in 4-dimensional bi-Hermitian geometry as well as provide geometrical representatives of twisted K -theory classes on even-dimensional compact semi-simple Lie groups.