

Conformally parallel G_2 -structures on a class of solvmanifolds

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Abstract

In this talk we present a construction of homogeneous parallel G_2 -metrics in a class of solvmanifolds, which are solvable extensions of 6-dimensional nilpotent Lie groups endowed with an $SU(3)$ -structure. We relate the corresponding non homogeneous metrics with holonomy contained in G_2 with known metrics and we show that the metrics found can be obtained evolving the $SU(3)$ -structure. The results are part of an on-going collaboration with Simon Chiossi.