

Oberseminar Geometrie und Topologie

Sommersemester
2022

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Associative Submanifolds in the Bryant-Salamon Space

12. Juli 2022 – 16.15 Uhr

IGT-Seminarraum 7.530, Pfaffenwaldring 57

Abstract: G_2 manifolds are a class of Riemannian manifolds central to the field of special holonomy. The Bryant-Salamon spaces were the first construction of complete G_2 manifolds and still play a special role due to their explicit nature. One such metric is defined on the spinor bundle over S^3 . The talk is about associative submanifolds in this space. They are a natural class of submanifolds in any G_2 manifold, are minimal and reveal structure of the ambient space. Our focus is on associatives with a certain T^2 symmetry. To that end, we develop a framework of $T^2 \times SU(2)$ moment maps for G_2 manifolds.



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