2022 Winter School in Mathematical Physics



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Hadi Nahari (Lyon) - Morita equivalence of singular Riemannian foliations and I-Poisson geometry

Wednesday 12 January 2022 10:40 (25 minutes)

We define the notion of Morita equivalence for singular Riemannian foliations (SRFs) such that the underlying singular foliations are Hausdorff-Morita equivalent as recently introduced by Garmendia and Zambon. Then we introduce the category of I-Poisson manifolds where its objects are just Poisson manifolds together with appropriate ideals of smooth functions, but its morphisms are an important relaxation of Poisson maps. We show that every singular foliation gives rise to an I-Poisson manifold and SRFs can be translated into this setting. This perspective permits us to construct an algebraic invariant of Hausdorff Morita equivalence for singular foliations. This is a joint work in progress with T. Strobl.

Session Classification: Short talks