Geometric structures on foliated manifolds. Tangentially g-foliations revisited

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Abstract: A tangentially g-foliation is a regular foliation whose tangent subbundle is trivial and the trivialisation is given by a set global vector fields forming a Lie algebra isomorphic to g. Such foliations appear in many a geometrical context. Let us just mention Sasakian manifolds, 3-Sasakian manifolds, or totally geodesic foliations. The topics investigated include the existence of such foliations with rich tranverse structures à Sasaki and the fatness condition.

The lecture is based on recent joint research with A. Tralle, M. Bocheński, and M. Sroka.