

DYNAMICS AND TOPOLOGY FOR 3-DIMENSIONAL LORENTZ MANIFOLDS

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It is a well known phenomenon that in contrast to what happens for Riemannian manifolds, compact Lorentz structures might have a noncompact group of isometries. Such a property of the isometry group generally has strong consequences both on the geometry, and on the topology of the manifold. The aim of the talk is to review old, and present new results on the subject, with an emphasis on closed 3-dimensional manifolds.