1103-53-106 **Vincent Pecastaing***, Université Paris-Sud, France. *The conformal group of a compact Lorentz manifold.*

In dimension greater than or equal to 3, the conformal group Conf(M,g) of a pseudo-Riemannian manifold (M,g) is a Lie group. The general question we are interested in is the following : For which Lie groups G does there exist (M,g) such that Conf(M,g)=G, or at least Conf(M,g) contains G ? Generally, any Lie group can be realized as a subgroup of some conformal group. If we restrict ourselves to compact manifolds, the question is no longer trivial : for instance, in Riemannian signature, a result of Ferrand-Obata implies that such groups G are exactly compact groups or (subgroups of) the Möbius group PO(1,n+1).

In this talk, we will give a picture of what we currently know around this question in Lorentz signature, in the light of a classification result of Adams-Stuck-Zeghib (1995) who gave, up to local isomorphisms, the list of the possible isometry groups of a compact Lorentz manifold. (Received August 14, 2014)