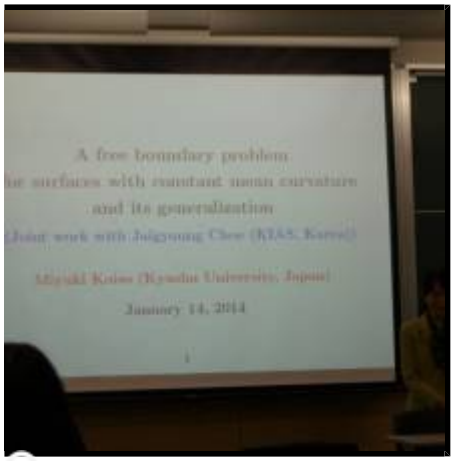
第17回

- 講演者： **Paolo Piccione** 氏 (Universidade de Sao Paulo
  - 題目Isometry group and geometry of compact stationary Lorentz manifolds
  - 日時：平成26年1月14日（火）16：30〜17：20

The global geometry of compact manifolds endowed with a non positive definite metric (pseudo-Riemannian manifolds) can be quite different from the geometry of Riemannian manifolds. For instance, compact pseudo-Riemannian manifolds may fail to be geodesically complete or geodesically connected; moreover, the isometry group of a compact pseudo-Riemannian manifold fails to be compact in general. In this talk I will present some recent results about the geometric structure of Lorentz manifolds essentially non Riemannian, i.e., with non compact isometry group. More precisely, I will consider compact Lorentzian manifolds that admit a somewhere timelike Killing vector field, and whose isometry group has infinitely many connected components. Up to a finite cover, such manifolds are products (or amalgamated products) of a flat Lorentzian torus and a compact Riemannian (resp., lightlike) manifold. This a joint work with A. Zeghib (ENS Lyon): *Actions of discrete groups on stationary Lorentz manifolds*, to appear in **Ergodic Theorem and Dynamical Systems**.



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2 images