

**Lie Groups and Representation Theory Seminar—
Tuesday Seminar on Topology
at the University of Tokyo**

リー群論・表現論セミナー—トポロジー火曜セミナー

DATE June 7 (Tue), 2011, 16:30–18:30

PLACE Room 056, Graduate School of Mathematical Sciences

SPEAKER **Masahiko Kanai** (金井雅彦) (The University of Tokyo)

TITLE Rigidity of group actions via invariant geometric structures

ABSTRACT It is a homomorphism into a FINITE dimensional Lie group that is concerned with in the classical RIGIDITY theorems such as those of Mostow and Margulis. In the meantime, differentiable GROUP ACTIONS for which we ask rigidity problems is a homomorphism into a diffeomorphism group, which is a typical example of INFINITE dimensional Lie groups. The purpose of the present talk is exhibiting several rigidity theorems for group actions in which I have been involved for years. Although quite a few fields of mathematics, such as ergodic theory, the theory of smooth dynamical systems, representation theory and so on, have made remarkable contributions to rigidity problems, I would rather emphasis geometric aspects: I would focus on those rigidity phenomenon for group actions that are observed by showing that the actions have INVARIANT GEOMETRIC STRUCTURES.