Lie Groups and Representation Theory Seminar at the University of Tokyo

リー群論・表現論セミナー

DATE July 3 (Thu), 2014, 16:00–18:00

PLACE Room 470, Graduate School of Mathematical Sciences

SPEAKER **Gordan Savin** (The University of Utah)

TITLE Structure of rational orbits in prehomogeneous spaces

ABSTRACT A prehomogeneous space is an algebraic representation of a reductive group that has a Zariski open orbit. Classifying orbits over a general field (or even a ring) is a non-trivial problem. A typical example is $GL(n)$ acting on the space of symmetric matrices. In this case the orbits are classified by the isomorphism classes of quadratic spaces. In this lecture I will give a detailed exposition of a case related to a work of Bhargava.