Lie Groups and Representation Theory Seminar at the University of Tokyo

DATE   December 15 (Tue), 2009, 17:00–18:00

PLACE   Room 056, Graduate School of Mathematical Sciences

SPEAKER   **Toshikazu Sunada (**   **)** (Meiji University)

TITLE   Open Problems in Discrete Geometric Analysis

ABSTRACT   Discrete geometric analysis is a hybrid field of several traditional disciplines: graph theory, geometry, theory of discrete groups, and probability. This field concerns solely analysis on graphs, a synonym of "1-dimensional cell complex". In this talk, I shall discuss several open problems related to the discrete Laplacian, a "protagonist" in discrete geometric analysis. Topics dealt with are 1. Ramanujan graphs, 2. Spectra of covering graphs, 3. Zeta functions of finitely generated groups.