

**Lie Groups and Representation Theory Seminar
at the University of Tokyo**

リ一群論・表現論セミナー

- DATE December 11 (Tue), 2007, 16:30–18:00
- PLACE Room 126, Graduate School of Mathematical Sciences
- SPEAKER **Junko Inoue** (井上順子) (Tottori University)
- TITLE Characterization of some smooth vectors for irreducible representations of exponential solvable Lie groups
- ABSTRACT This is a joint work with Jean Ludwig (University of Metz). Let G be an exponential solvable Lie group, and π be an irreducible unitary representation of G . By induction from a character on a connected subgroup H , π is realized on a Hilbert space of L^2 -functions on a homogeneous space G/H . We investigate a subspace \mathcal{SE} of C^∞ -vectors of π consisting of functions with a certain property of rapidly decreasing at infinity. We give a description of \mathcal{SE} as the space of C^∞ -vectors of an extension of π to an exponential solvable group containing G .