

**GCOE Lectures
at the University of Tokyo**

DATE June 1 (Tue), 2010, 16:30–18:00

PLACE Room 126, Graduate School of Mathematical Sciences

SPEAKER **Birgit Speh** (Cornel University)

TITLE Introduction to the cohomology of locally symmetric spaces

ABSTRACT I will give an introduction to the cohomology of noncompact locally symmetric spaces $X_\Gamma = K \backslash G / \Gamma$. If X_Γ is cocompact this cohomology can be expressed as the (g, K) -cohomology of automorphic representations. I will explain how representation theory and automorphic forms can be used to study the cohomology in this case.