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

**Date**  January 22 (Tue), 2013, 16:30–18:00

**Place**  Room 126, Graduate School of Mathematical Sciences

**Speaker**  Simon Goodwin (Birmingham University)

**Title**  Representation theory of finite $W$-algebras

**Abstract**  There has been a great deal of recent research interest in finite $W$-algebras motivated by important connection with primitive ideals of universal enveloping algebras and applications in mathematical physics. There have been significant breakthroughs in the representation theory of finite $W$-algebras due to the research of a variety of mathematicians. In this talk, we will give an overview of the representation theory of finite $W$-algebras focusing on $W$-algebras associated to classical Lie algebras (joint with J. Brown) and $W$-algebras associated to general linear Lie superalgebras (joint with J. Brown and J. Brundan).