SCMS Seminar

HECKE ALGEBRA METHODS FOR THE REPRESENTATION THEORY OF P-ADIC GROUPS

Dr. Kei Yuen Chan

University of Amsterdam

Time: 10:30-11:30am., Monday, 10th July, 2017

Venue: Room 2201, Guanghua Easten Main Building, Handan Campus

Abstract: The representation theory of p-adic groups has been extensively studied over few decades and has rich connections to many branches in mathematics such as algebraic geometry, harmonic analysis, number theory and mathematical physics.

Affine and graded Hecke algebras have been useful tools in the study of the representation theory of p-adic groups. The problems for p-adic groups can be translated to the Hecke algebra ones via the Bernstein components and Lusztig reductions. Several classical problems such as the Local Langlands correspondence, classifying unitary representations and computing formal degrees can be understood with the help of techniques from Hecke algebras. In this talk, I shall explain how the Hecke algebra provides new perspectives in studying homological properties and branching problems for representations of p-adic groups.

Shanghai Center for Mathematical Sciences
22F East Guanghua Tower, No.220 Handan Road, Shanghai, China
Tel: 55665643 Fax: 65642190 Postcode: 200433 Email: scms@fudan.edu.cn