MATH-IMS Joint Pure Mathematics Colloquium Series
The Chinese University of Hong Kong

This Colloquium Series in Pure Mathematics is organized by the Department of Mathematics and the Institute of Mathematical Sciences (IMS) at The Chinese University of Hong Kong. The series focuses on all areas of pure mathematics together with theoretical developments and applications.

Date: November 4, 2022 (Friday)
Time: 4:30PM-5:30PM (Hong Kong Time)
Zoom Link: https://cuhk.zoom.us/j/98846779826

Generalized affine Hecke algebras and the Langlands program

Speaker: Professor Anne-Marie Aubert
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Abstract: The Langlands program is a broad tissue of conjectures that relates different areas of mathematics, including representation theory and number theory. Affine Hecke algebras are deformations of group algebras of Coxeter systems of affine type. We will introduce generalizations of them which occur naturally in both the representation theory of p-adic reductive groups and the arithmetic side of the local Langlands correspondence. After having provided examples of these generalized affine Hecke algebras, we will explain how they can be used to build the correspondence in a large amount of cases.

Bio: Prof. Anne-Marie Aubert is the Director of Research at the Centre National de la Recherche Scientifique (CNRS) at the Institut Mathématique de Jussieu - Paris Rive Gauche, Paris, France, where she is in charge of the Automorphic Forms team. She is a leading expert in representation theory of p-adic groups and Langlands program, a member of the AIM Research Community on Representation Theory and Noncommutative Geometry, and, since 2019, the managing editor of the AMS journal Representation Theory.