



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

## **SEMINAR ON PURE MATHEMATICS**

### **Center of the quantum affine algebra at critical level**

by

**Prof. Naihuan JING**

North Carolina State University

#### **Abstract**

I will discuss formulas of generators of the center of the completed quantum affine algebra in type A at the critical level. They are associated with primitive idempotents of the Hecke algebra and parameterized by Young diagrams. The Harish-Chandra images of the Sugawara operators are identified with the eigenvalues of the operators acting in the  $q$ -deformed Wakimoto modules. This recent joint work relies on suitable  $q$ -versions of the symmetric group and new ingredients of the Hecke algebra.

**Date : 22 May 2023 (Monday)**

**Time : 3:00pm**

**Venue : Room 4472 (Lifts 25/26)**

*All are Welcome!*