



**The Hong Kong University of Science and Technology**

**Department of Mathematics**

**Lie Theory Seminar**

**Recent developments in the  
Schur-Weyl duality**

By

***Prof. Jie DU***

***University of New South Wales***

**Abstract**

Schur-Weyl duality links representations of the general linear groups with those of symmetric groups. Over its history of more than one hundred years, this theory continues to make profound influence in several areas of mathematics such as Lie theory, representation theory, invariant theory, combinatorics, etc. I will mainly focus on the quantum Schur-Weyl duality through the definitions of (quantum) Schur algebras and the important role played in the new constructions of quantum linear groups. I will also outline some recent developments of the theory, especially for the affine and super counterparts.

***Date : Monday, 8 January, 2018***

***Time: 11:00 a.m. – 12:00 noon***

***Venue: Room 5508, Academic Building  
(near Lifts 25&26), HKUST***

***All are welcome!***