



XIAMEN UNIVERSITY MALAYSIA

廈門大學 馬來西亞分校

## Research Talk – XMU-XMUM

### THE REPRESENTATION TYPE OF THE DESCENT ALGEBRAS

May 27, 2024 (Monday), 3:30–4:30 pm Room A4#G06

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Research interests: representation theory of finite-dimensional algebras, especially group algebras, and their interplays with algebraic combinatorics and algebraic geometry. A special interest in Coxeter group algebras, Schur algebras, and the Solomon's descent algebras.

### SPEAKER INTRODUCTION

Dr. Lim Kay Jin is an assistant professor at the School of Physical & Mathematical Sciences Nanyang Technological University. Dr. Lim Kay Jin completed his PhD at the University of Aberdeen in 2009, and a Master degrees at the National University of Singapore in 2007.

### ABSTRACT

This is a joint work with Karin Erdmann. The representation type of finite-dimensional algebras can be classified into (mutually exclusive) finite, tame and wild types. In this talk, we report the study of the representation type of the Solomon's descent algebras of finite Coxeter groups. The type  $\mathbb{A}$  and  $p = \infty$  case has previously been obtained by Manfred Schocker. Our work aims to complete the classification for all finite Coxeter groups and primes.