



Departmental PhD Thesis Exam

Tuesday, July 16, 2024 at 11:00 a.m. (sharp)
Via Zoom/BA6183



PhD Candidate: Dinushi Munasinghe

Supervisors: Dror Bar-Natan, Ben Webster

Thesis title: Schur Algebras in Type B

We compare two type B generalizations of the q -Schur algebra: the cyclotomic q -Schur algebra of Dipper, James, and Mathas, and an algebra constructed to maintain the type B Schur duality of Bao, Wang, and Watanabe, introduced by Lai and Luo. By writing the latter algebra as an idempotent truncation of the former, we leverage its properties to establish cellularity and study the crystal graph structure of the simples of the endomorphism algebra, investigating parameter values at which these algebras are Morita equivalent and quasi-hereditary. We then investigate its blocks, also by comparison with those of the cyclotomic q -Schur algebra and type B Hecke algebra.