

Representation Theory, Combinatorics & Geometry

Workshop on representation theory of symmetric groups and
related algebras
(12–16 December 2022)



Venue

IMS Auditorium
Institute for Mathematical Sciences
3 Prince George's Park
Singapore 118402

ORGANIZING COMMITTEE

Co-Chairs

Huanchen Bao
National University of Singapore, Singapore

Joseph Chuang
City, University of London, UK

Karin Erdmann
University of Oxford, UK

Kay Jin Lim
Nanyang Technological University, Singapore

Kai Meng Tan
National University of Singapore, Singapore

Weiqliang Wang
University of Virginia, USA

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Monday, 12 December 2022

| Time | Title | Speaker |
|-----------|--|---|
| 0915–0930 | Registration | |
| 0930–1020 | Stability of plethysms of symmetric functions | Mark Wildon Royal Holloway, University of London, UK |
| 1030–1120 | What has p-Kazhdan—Lusztig theory done for us? | Christopher Bowman University of York, UK |
| 1130–1430 | <i>Lunch Break</i> | |
| 1430–1520 | Symmetric groups, increasing and decreasing subsequences, and canonical bases for centralizer algebras | Stephen Doty Loyola University of Chicago, USA |
| 1530–1620 | Sylow branching coefficients for symmetric groups | Stacey Law University of Cambridge, UK |

Tuesday, 13 December 2022

| Time | Title | Speaker |
|-----------|--|---|
| 0915–0930 | Registration | |
| 0930–1020 | Murphys, Casimirs, Transvections and Hecke algebras | Arun Ram University of Melbourne, Australia |
| 1030–1120 | On two reciprocities on Hecke algebras | Hyohe Miyachi Osaka Metropolitan University, Japan |
| 1130–1430 | <i>Lunch Break</i> | |
| 1430–1520 | Decomposition numbers of spin RoCK blocks of symmetric groups | Lucia Morotti Heinrich Heine University Düsseldorf, Germany |
| 1530–1620 | Cyclotomic wreath-zigzag algebras and RoCK blocks in higher levels | Robert Muth Duquesne University, USA |

Wednesday, 14 December 2022

| Time | Title | Speaker |
|-----------|--------------------------------------|--|
| 0915–0930 | Registration | |
| 0930–1020 | Gram determinants of type A_n webs | Stuart Martin University of Cambridge, UK |

| Wednesday, 14 December 2022 | | |
|-----------------------------|--|---|
| Time | Title | Speaker |
| 1030–1120 | Determination of characters by their values on p' -classes | Eoghan McDowell Okinawa Institute of Science and Technology, Japan |
| 1130–1430 | Lunch Reception at IMS | |
| 1430–1505 | Endomorphisms of Specht Modules in Characteristic 2 | Adam Higgins University of York, UK |
| 1510–1545 | The rank varieties of some simple modules for symmetric groups | Jialin Wang Nanyang Technological University, Singapore |
| 1550–1625 | Representation type of level 1 KLR algebras $R^k(\beta)$ in type $C_l^{(1)}$ | Berta Hudak Okinawa Institute of Science and Technology, Japan |

| Thursday, 15 December 2022 | | |
|----------------------------|--|---|
| Time | Title | Speaker |
| 0915–0930 | Registration & Group Photo | |
| 0930–1020 | Tau-tilting finite block algebras of Hecke algebras | Susumu Ariki Osaka University, Japan |
| 1030–1120 | Irreducible (Specht) modules for cyclotomic KLR algebras | Louise Sutton Okinawa Institute of Science and Technology, Japan |
| 1130–1430 | Lunch Break | |
| 1430–1520 | Some representation theory of Kadar-Martin-Yu algebras | Alison Parker University of Leeds, UK |
| 1530–1620 | From crystals to cellularity of KLR algebras | Daniel Tubbenhauer University of Sydney, Australia |

| Friday, 16 December 2022 | | |
|--------------------------|--|--|
| Time | Title | Speaker |
| 0915–0930 | Registration | |
| 0930–1020 | The i -quantum groups $U(n)$ and $U^i(n)$ | Jie Du University of New South Wales, Australia |
| 1030–1120 | On self-extensions of irreducible modules for symmetric groups | Haralampos Geranios University of York, UK |
| 1130–1430 | Lunch Break | |
| 1430–1520 | Graded decomposition matrices for type C KLR algebras | Liron Speyer Okinawa Institute of Science and Technology, Japan |

| Friday, 16 December 2022 | | |
|--------------------------|---|--|
| Time | Title | Speaker |
| 1530–1620 | On the conjugation action for quantum general linear groups | Stephen Donkin University of York, UK |

This schedule is accurate as of 12 December 2022.