Representation Theory, Combinatorics and Geometry
(12 Dec 2022–07 Jan 2023)

Playlist for Workshop on representation theory of symmetric groups and related algebras

Playlist for Mini Courses

Playlist for Workshop on interactions between representation theory, combinatorics, and geometry

Name & Affiliation	Talk Title
Susumu Ariki Osaka University, Japan	Tau-tilting finite block algebras of Hecke algebras (Slides)
Christopher Bowman University of York, UK	What has p-Kazhdan—Lusztig theory done for us?
Jon Brundan University of Oregon, USA	Non-degeneracy of the odd categorification of sl_2
Tsao-Hsien Chen University of Minnesota, USA	Real groups, symmetric varieties, and derived Satake equivalence
Shun-Jen Cheng Academia Sinica, Taipei	Categories of Whittaker Modules over Lie superalgebras and Categorification of Fock Spaces
Dan Ciubotaru University of Oxford, UK	A nonabelian Fourier transform for tempered unipotent representations of reductive p-adic groups
Stephen Donkin University of York, UK	On the conjugation action for quantum general linear groups
Stephen Doty Loyola University of Chicago, USA	Symmetric groups, increasing and decreasing subsequences, and canonical bases for centralizer algebras
Jie Du University of New South Wales, Australia	The i-quantum groups $U^J(n)$ and $U^I(n)$ (Slides)
Ryo Fujita Kyoto University, Japan	Isomorphisms among quantum Grothendieck rings and their applications
Christof Geiss Instituto de Matemáticas (UNAM), Mexico	Geometric construction of the positive part of the Kac-Moody Lie algebra of affine type $\tilde{C}_n$
Haralampos Geranios University of York, UK	On self-extensions of irreducible modules for symmetric groups

Name & Affiliation	Talk Title
Xuhua He Chinese University of Hong Kong, China	Mini Course Total positivity: combinatoics, geometry, logic and representation theory
Adam Higgins University of York, UK	Endomorphisms of Specht Modules in Characteristic 2
Berta Hudak Okinawa Institute of Science and Technology, Japan	Representation type of level 1 KLR algebras $R^{\Lambda k}(\beta)$ in type $C_\ell^{(1)}$
Syu Kato Kyoto University, Japan	Higher level BGG reciprocity for current algebras
Stefan Kolb Newcastle University, UK	Quantum symmetric pairs and q-Pollaczek polynomials
Stacey Law University of Cambridge, UK	Sylow branching coefficients for symmetric groups
Ivan Loseu Yale University, USA	Quantum symmetric pairs and q-Pollaczek polynomials
George Lusztig MIT, USA	***Distinguished Visitor Lecture Series*** Unipotent character sheaves and strata of a reductive group Colloquium Talk Semisimple groups and the theory of total positivity
Stuart Martin University of Cambridge, UK	Gram determinants of type An webs
Eoghan McDowell Okinawa Institute of Science and Technology, Japan,	Determination of characters by their values on p'-classes
Hyohe Miyachi Osaka Metropolitan University, Japan	On two reciprocities on Hecke algebras
Lucia Morotti Leibniz Universitat Hannover, Germany	Decomposition numbers of spin RoCK blocks of symmetric groups
Robert Muth Duquesne University, USA	Cyclotomic wreath-zigzag algebras and RoCK blocks in higher levels

Name & Affiliation	Talk Title
Hiraku Nakajima KAVLI IPMU, Japan	***Distinguished Visitor Lecture Series*** Semisimple groups and the theory of total positivity Mini Course Coulomb branches of 3d N=4 SUSY gauge theories and bow varieties
Se-jin Oh Ewha Womans University, South Korea	Mini Course Monoidal categorifications, quantum affine algebras and quiver Hecke algebras (Part 1) (Part 2) (Part 3)
Alison Parker University of Leeds, UK	Some representation theory of Kadar-Martin-Yu algebras
Arun Ram University of Melbourne, Australia	Murphys, Casimirs, Transvections and Hecke algebras
Linhui Shen Michigan State University, USA	Cluster nature of quantum groups
Liron Speyer Okinawa Institute of Science and Technology, Japan	Graded decomposition matrices for type C KLR algebras
Louise Sutton Okinawa Institute of Science and Technology, Japan	Irreducible (Specht) modules for cyclotomic KLR algebras
Daniel Tubbenhauer University of Sydney, Australia	From crystals to cellularity of KLR algebras
Eric Vasserot Université Paris Cité, France	Critical convolution algebras and quantum loop groups
Jialin Wang Nanyang Techlonogical University, Singapore	The rank varieties of some simple modules for symmetric groups
Weiqiang Wang University of Virginia, USA	Relative braid group actions on ıquantum groups and modules
Ben Webster University of Waterloo, Canada	The noncommutative Springer resolution of type A and KLRW algebras
Mark Wildon Royal Holloway, University of London, UK	Stability of plethysms of symmetric functions
Ting Xue University of Melbourne, Australia	Character sheaves for graded Lie algebras

Name & Affiliation	Talk Title
Milen Yakimov Northeastern University, USA	Poisson geometry and representation theory of cluster algebras
Yaping Yang University of Melbourne, Australia	Higher dimensional loop Grassmannians via fusion
Xinwen Zhu Caltech, USA	Mini Course An introduction to the geometric Satake equivalence