Representation Theory, Combinatorics & Geometry Workshop on interactions between representation theory, combinatorics, and geometry (3–7 January 2023)



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

ORGANIZING COMMITTEE

Co-Chairs

Huanchen Bao National University of Singapore, SIngaproe

> 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

> Weiqiang Wang University of Virginia, USA

Workshop on interactions between representation theory, combinatorics, and geometry (03-07 January 2023)

Tuesday, 03 January 2023		
Time	Title	Speaker
0900-0920	Registration	
0920-0930	Opening Remarks	
0930-1030	<i>Distinguished Visitor Lecture Series</i> Unipotent character sheaves and strata of a reductive group	George Lusztig MIT, USA
1030-1045	Coffee Break	
1045-1145	Non-degeneracy of the odd categorification of sl_2	Jon Brundan University of Oregon, USA
1145-1400	Group Photo & Lunch Break	
1400-1500	Higher level BGG reciprocity for current algebras	Syu Kato Kyoto University, Japan
1500-1515	Coffee Break	
1515-1615	Character sheaves for graded Lie algebras	Ting Xue University of Melbourne, Australia

Wednesday, 04 January 2023		
Time	Title	Speaker
0915-0930	Registration	
0930-1030	On t-structures on the equivariant derived category of the Steinberg variety	Ivan Loseu Yale University, USA
1030-1045	Coffee Break	
1045-1145	Real groups, symmetric varieties, and derived Satake equivalence	Tsao-Hsien Chen University of Minnesota, USA
1145-1400	Lunch Break	
1400-1500	Higher dimensional loop Grassmannians via fusion	Yaping Yang University of Melbourne, Australia
1500–1515	Coffee Break	
1515-1615	Critical convolution algebras and quantum loop groups	Eric Vasserot Université Paris Cité, France

Thursday, 05 January 2023		
Time	Title	Speaker
0915-0930	Registration	
0930-1030	Distinguished Visitor Lecture Series Coulomb branches of orthosymplectic quiver gauge theories	Hiraku Nakajima Kavli IPMU, Japan
1030-1045	Coffee Break	
1045-1145	The noncommutative Springer resolution of type A and KLRW algebras	Ben Webster University of Waterloo, Canada
1145-1400	Lunch Break	
1400-1500	Cluster nature of quantum groups	Linhui Shen Michigan State University, USA
1500-1515	Coffee Break	
1515–1615	Geometric construction of the positive part of the Kac-Moody Lie algebra of affine type \tilde{C}_n	Christof Geiss Instituto de Matemáticas (UNAM), Mexico

Friday, 06 January 2023		
Time	Title	Speaker
0915-0930	Registration	
0930-1030	Quantum symmetric pairs and q-Pollaczek polynomials	Stefan Kolb Newcastle University, UK
1030-1045	Coffee Break	
1045–1145	Relative braid group actions on <i>i</i> quantum groups and modules	Weiqiang Wang University of Virginia, USA
1145-1400	Lunch Break	
1400-1500	Colloquium Talk at the Dept of MathematicsSemisimple Groups and the Theory of TotalPositivityDept of MathematicsLT 34, Block S17, Level 310 Lower Kent Ridge RoadSingapore 119076	George Lusztig MIT, USA

Saturday, 07 January 2023 (Kindly note the different schedule)

Time	Title	Speaker
0915-0930	Registration	
0930-1030	Categories of Whittaker Modules over Lie superalgebras and Categorification of Fock Spaces	Shun-Jen Cheng Academia Sinica, Taipei
1030-1045	Coffee Break	

Saturday, 07 January 2023 (Kindly note the different schedule)		
Time	Title	Speaker
1045–1145	Isomorphisms among quantum Grothendieck rings and their applications	Ryo Fujita Kyoto University, Japan
1145-1300	Lunch Reception at IMS	
1300-1400	Poisson geometry and representation theory of cluster algebras	Milen Yakimov Northeastern University, USA
1400-1415	Coffee Break	
1415-1515	A nonabelian Fourier transform for tempered unipotent representations of reductive p-adic groups	Dan Ciubotaru University of Oxford, UK

This schedule is accurate as of 15 December 2022.