Representations and Characters: Revisiting the Works of Harish-Chandra and André Weil

A satellite conference of the virtual ICM 2022

(01 Jul 2022–15 Jul 2022)

Venue

Hybrid

IMS Auditorium

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All times are indicated in GMT+8 (SINGAPORE TIME).
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Friday, 1 July 2022		
Time	**Title**	**Speaker**
1015–1030	Registration	
1030–1100	Opening Statement	
1100–1200	***Distinguished Visitor Lecture Series*** Proper actions and representation theory (Part 1)	Toshiyuki Kobayashi The University of Tokyo, Japan
1200–1400	*Lunch Break*	
1400–1500	***Distinguished Visitor Lecture Series*** The Theta Correspondence - Origins, Results, and Ramifications (Part I)	Roger Howe Yale University, USA
1500–1530	*Tea Break*	
1530–1630	Tutorial Lecture Howe to transfer Harish-Chandra characters via Weil representations (Part I)	Wee-Teck Gan National University of Singapore, Singapore

Saturday, 2 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Tutorial Lecture Howe to transfer Harish-Chandra characters via Weil representations (Part II)	Wee-Teck Gan National University of Singapore, Singapore
1000–1030	*Tea Break*	
1030–1130	***Distinguished Visitor Lecture Series*** Proper actions and representation theory (Part II)	Toshiyuki Kobayashi The University of Tokyo, Japan
1130–1300	*Lunch Break*	
1300–1400	***Distinguished Visitor Lecture Series*** The Theta Correspondence - Origins, Results, and Ramifications (Part II)	Roger Howe Yale University, USA

Monday, 4 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Tutorial Lecture Howe to transfer Harish-Chandra characters via Weil representations (Part III)	Wee-Teck Gan National University of Singapore, Singapore
1000–1030	*Tea Break*	
1030–1130	***Distinguished Visitor Lecture Series*** Proper actions and representation theory (Part III)	Toshiyuki Kobayashi The University of Tokyo, Japan
1130–1400	*Lunch Break*	
1400	**ICM Session Chair: Wee-Teck Gan (National University of Singapore, Singapore)**	
1400–1445	ICM Lecture Relative trace formulae and the Gan-Gross-Prasad conjectures	Raphael Beuzart-Plessis Aix-Marseille University, France
1445–1530	*Tea Break*	
1530–1630	***ICM Emmy Noether Lecture*** Representations of p-adic groups	Marie-France Vignéras IMJ-PRG, France

Tuesday, 5 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	A non-abelian Fourier transform for tempered unipotent representations of p-adic groups	Anne-Marie Aubert IMJ-PRG, France
1000–1030	*Tea Break*	
1030–1130	Characterization of supercuspidal representations via Harish-Chandra characters	Masao Oi Kyoto University, Japan
1130–1300	*Lunch Break*	
1300	**ICM Session Chair: Roger Howe (Yale University, USA)**	
1300–1345	ICM Lecture Representations of reductive groups over local fields	Tasho Kaletha University of Michigan, USA
1345–1415	*Tea Break*	
1415–1500	ICM Lecture What is an i-quantum group, and what is it good for?	Weiqiang Wang University of Virginia, USA
1500–1515	*Tea Break*	

Tuesday, 5 July 2022		
Time	**Title**	**Speaker**
1515–1535	*Live Streaming: IMU Award Ceremony 2022* Announcement of the Fields Medalists by IMU President | Presentation of the Awards	
1535–1700	*Live Streaming: IMU Award Ceremony 2022* Videos and Laudatios for all Fields Medalists	

Wednesday, 6 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Harmonic analysis on GLn over finite fields	Shamgar Gurevich University of Wisconsin–Madison, USA
1000–1030	*Tea Break*	
1030–1130	Uniform bounds of orbital integrals and affine Springer fibers	Cheng-Chiang Tsai Academia Sinica, Taiwan
1130–1400	*Lunch Break*	
1400	**ICM Session Chair: Anne-Marie Aubert (IMJ-PRG, France)**	
1400–1445	ICM Lecture Theta lifting and Langlands functoriality	Atsushi Ichino Kyoto University, Japan
1445–1515	*Tea Break*	
1515–1600	ICM Lecture Spherical varieties, functoriality, and quantization	Yiannis Sakellaridis Johns Hopkins University, USA
1600–1630	*Tea Break*	
1630–1715	ICM Lecture (Zoom Online) PBW degenerations, quiver Grassmannians, and toric varieties	Evgeny Feigin HSE University, Russia

Thursday, 7 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Hecke algebra actions on a double flag variety	Kyo Nishiyama Aoyama Gakuin University, Japan
1000–1030	*Tea Break*	
1030–1130	Finite-group actions on reductive groups and buildings II: the unauthorized sequel	Jeff Adler American University, USA
1130–1400	*Lunch Break*	

Thursday, 7 July 2022		
Time	**Title**	**Speaker**
1400	**ICM Session Chair: Toshiyuki Kobayashi (The University of Tokyo, Japan)**	
1400–1445	ICM Lecture Points of Shimura varieties modulo primes	Sug Woo Shin The University of California, Berkeley, USA
1445–1630	*Tea Break*	
1630–1715	ICM Lecture Theta correspondence and the orbit method	Binyong Sun Zhejiang University, China Chen-Bo Zhu National University of Singapore, Singapore

Friday, 8 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Zoom Online On the local character expansion	Monica Nevins University of Ottawa, Canada
1000–1030	*Tea Break*	
1030–1130	The orbit method and normality of closures of nilpotent orbits	Dan Barbasch Cornell University, USA
1130–1400	*Lunch Break*	
1400–1500	Zoom Online Localization and higher branching laws for Harish-Chandra modules	Wen-Wei Li BICMR, Peking University, China
1500–1530	*Tea Break*	
1530–1630	Conformally invariant differential operators on Heisenberg groups and minimal representations	Jan Frahm Aarhus University, Denmark

Saturday, 9 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	***Distinguished Visitor Lecture Series*** Harish-Chandra's admissibility theorem and beyond	Toshiyuki Kobayashi The University of Tokyo, Japan
1000–1030	*Tea Break*	
1030–1130	On the local Gross-Prasad conjecture	Cheng Chen University of Minnesota, USA
1130–1400	*Lunch Break*	

Saturday, 9 July 2022		
Time	**Title**	**Speaker**
1400–1500	Zoom Online Representations of p-adic groups – with a twist	Jessica Fintzen University of Cambridge, UK

Tuesday, 12 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Zoom Online Projection of elliptic orbits and branching laws	Hongyu He Louisiana State University, USA
1000–1030	*Tea Break*	
1030–1130	Zoom Online Bernstein projectors for unrefined types	Gordan Savin University of Utah, USA
1130–1330	*Lunch Break*	
1330–1430	In between finite and p-adic groups in type A	Max Gurevich Technion - Israel Institute of Technology, Israel
1430–1500	*Tea Break*	
1500–1600	From symmetry breaking toward holography in representation theory	Michael Pevzner Laboratoire de Mathématiques de Reims (LMR) - CNRS UMR 9008, France
1600–1630	*Tea Break*	
1630–1730	Zoom Online Endo-parameters for classical groups and splittings	Shaun Stevens University of East Anglia, UK

Wednesday, 13 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Zoom Online The Capelli eigenvalue problem for Lie algebras and beyond	Hadi Salmasian University of Ottawa, Canada
1000–1030	*Tea Break*	
1030–1130	Dual pairs in an orhosymplectic Lie supergroup and double commutant theorem for complex pairs	Allan Merino University of Ottawa, Canada
1130–1330	*Lunch Break*	

Wednesday, 13 July 2022		
Time	**Title**	**Speaker**
1330–1430	The fundamental lemma for spherical Hecke algebras and motivic integration	Jorge Enrique Cely Garcia Vietnam Institute for Advanced Study in Mathematics, Vietnam
1430–1500	*Tea Break*	
1500–1600	The Iwahori-fixed part of the Gelfand-Graev representation of a covering group	Edmund Karasiewicz University of Utah, USA
1600–1630	*Tea Break*	
1630–1730	Dirac operators for the standard BGG category $\mathcal{O}$	Spyridon Afentoulidis-Alampanis Charles University, Czech Republic

Thursday, 14 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Zoom Online Explicit character formulæ for tame supercuspidals via asymptotic expansions	Loren Spice Texas Christian University, USA
1000–1030	*Tea Break*	
1030–1130	Zoom Online Relations between Kazhdan-Lusztig polynomials for real and p-adic classical groups	Peter Trapa University of Utah, USA
1130–1330	*Lunch Break*	
1330–1430	Generic Hecke algebra and theta correspondence over finite fields	Jia-Jun Ma Xiamen University, China
1430–1500	*Tea Break*	
1500–1600	Theta correspondence and Arthur packets: the Adams conjecture	Petar Bakic University of Utah, USA

Friday, 15 July 2022		
Time	**Title**	**Speaker**
0845–0900	Registration	
0900–1000	Zoom Online Dimensions for the spaces of Siegel cusp forms of degree 2 and level 4	Manami Roy Fordham University, USA
1000–1030	*Tea Break*	
1030–1130	The modular distinction problems	Hengfei Lu Universität Wien, Austria
1130–1330	*Lunch Break*	

Friday, 15 July 2022		
Time	**Title**	**Speaker**
1330–1430	Siegel Fixed Vectors in Depth Zero Supercuspidal Representations of GSp(4)	Jonathan Cohen University of North Texas, USA
1430–1500	*Tea Break*	
1500–1600	Zoom Online On nilpotent orbits in good characteristic	Jiu Kang Yu The Chinese University of Hong Kong, China