

# Algebraic Lie Theory and Representation Theory 2024 (ALTReT2024)

Date: May 17 – 20, 2024

Venue: Kyukamura Minami-Aso (Kumamoto, Japan)

## Program

	May 17		May 18	May 19		May 20
		9:10–10:00	Nguyen	Tauchi	9:00–9:50	Kouno
		10:15–11:05	Yoshida	Kano	10:00–10:25	Short talks
		11:20–12:10	Tanaka	Ishibashi	10:35–11:25	Ikeda
			Lunch	Lunch		Lunch
		14:00–15:00	Tanisaki (1)	Tanisaki (2)		
15:40–16:30	Katsuda	15:30–16:30	Yoshinaga (1)	Yoshinaga (2)		
16:50–17:40	Sugimoto	16:50–17:40	Iwata	Yamane		
	Dinner		Dinner	Dinner		
20:00–20:50	Nakayama	20:00–20:30	Hiramae	Free discussion		
		20:35–21:05	Kontrec	Free discussion		

# Title

## May 17

- 15:40 – 16:30 Atsushi Katsuda  
Chebotarev density theorem, Quasi-morphism, Modified Riemann-Hilbert problem and Oper
- 16:50 – 17:40 Shogo Sugimoto (Waseda University)  
Combinatorics of Demazure characters in type A

—Dinner—

- 20:00 – 20:50 Yusuke Nakayama (Waseda University)  
Homogeneous Ulrich bundles on homogenous varieties of certain exceptional type

## May 18

- 9:10 – 10:00 Duc-Khanh Nguyen (OIST)  
On the shifted Littlewood-Richardson coefficients and Littlewood-Richardson coefficients
- 10:15 – 11:05 Atsuro Yoshida (Nagoya University)  
Orbit structures of some posets arising from Lie theory under rowmotion
- 11:20 – 12:10 Masato Tanaka (Nagoya University)  
Solvability and nilpotency of Kac–Paljutkin’s finite quantum group and Sekine quantum groups

—Lunch—

- 14:00 – 15:00 Toshiyuki Tanisaki  
Quantized flag manifolds and representations of quantum groups (part 1)
- 15:30 – 16:30 Masahiko Yoshinaga (Osaka University)  
TBA (part 1)
- 16:50 – 17:40 Yoritaka Iwata (Osaka University of Economics and Law)  
Algebraic module of unbounded infinitesimal generators

—Dinner—

- 20:00 – 20:30 Naoya Hiramae (Kyoto University)  
On  $\tau$ -tilting finiteness of group algebras
- 20:35 – 21:05 Ana Kontrec (RIMS)  
Kazama-Suzuki duality between certain simple  $W$ -algebras

## May 19

- 9:10 – 10:00 Taito Tauchi (Aoyama Gakuin University)  
Double flag variety for indefinite unitary group  $U(p, p)$
- 10:15 – 11:05 Shunsuke Kano (Tohoku University)  
Entropy of cluster DT transformations and the finite-tame-wild trichotomy for acyclic quivers
- 11:20 – 12:10 Tsukasa Ishibashi (Tohoku University)  
Local acyclicity of the cluster algebras from moduli spaces of  $G$ -local systems

—Lunch—

- 14:00 – 15:00 Toshiyuki Tanisaki  
Quantized flag manifolds and representations of quantum groups (part 2)
- 15:30 – 16:30 Masahiko Yoshinaga (Osaka University)  
TBA (part 2)
- 16:50 – 17:40 Hiroyuki Yamane (University of Toyama)  
Hamiltonian cycles and generalized quantum groups

—Dinner—

- 20:00 – 21:05 Free discussion

## May 20

- 9:00 – 9:50 Takashi Kouno (Waseda University)  
Positivity conjecture for the equivariant quantum  $K$ -ring of the flag manifold and the two-step flag manifold
- 10:00 – 10:25 Short talk session
- 10:35 – 11:25 Takeshi Ikeda (Waseda University)  
Equivariant  $K$ -homology of affine Grassmannian

—Lunch—

Organizers:

Naoki Fujita (Kumamoto University)

Katsuyuki Naoi (Tokyo University of Agriculture and Technology)