# 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	9:20-10:10	Kouno
		10:15-11:05	Yoshida	Kano	10:30-11:20	Ikeda
		11:20-12:10	Tanaka	Ishibashi		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 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 homogeneous 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

 $\bullet$  20:35 – 21:05 Ana Kontrec (RIMS) TBA

#### **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—

 $\bullet \ 14:00-15:00$ 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

- 9:20 10:10 Takashi Kouno (Waseda University)
   Positivity conjecture for the equivariant quantum K-ring of the flag manifold and the two-step flag manifold
- 10:30 11:20 Takeshi Ikeda (Waseda University)
   Equivariant K-homology of affine Grassmannian

—Lunch—

#### Organizers:

Naoki Fujita (Kumamoto University)

Katsuyuki Naoi (Tokyo University of Agriculture and Technology)