

RIMS Workshop

Research on finite groups, algebraic combinatorics, and vertex algebras

Organizer[†] : Yusuke Arike (Kagoshima University)

Date: 2025 December 22 (Mon), 10:00–2025 December 25 (Thu), 12:00

Location: Room 420, RIMS, Kyoto University

PROGRAM

December 22 (Mon)

- 10:00 – 10:50 Dom Vito Briones (Tohoku University)
Equiangular tight frames from fusion schemes
- 11:00 – 11:50 Hajime Tanaka (Tohoku University)
Spherical designs obtained from P - and Q -polynomial association schemes
- 13:30 – 14:20 Ryo Sato (Aichi Institute of Technology)
Zhu algebras of superconformal vertex algebras
- 14:30 – 15:20 Xuanzhong Dai (Kyoto University)
Quasi-lisse vertex algebras appearing from BRST reduction
- 15:40 – 16:30 Wenda Fang (Kyoto University)
Chiralization of Classical R -Matrices and a Generalized AKS Integrability Scheme via Vertex Algebras

December 23 (Tue)

- 10:00 – 10:50 Guillermo N unez-Ponasso (Tohoku University)
New determinantal bounds for complex matrices
- 11:00 – 11:50 Fajri Maulana (Kanazawa University)
The Integrality and Algebraic Connectivity of Hyper-regular Hypergraph $C(k, l, n, m)$
- 13:30 – 14:20 Sin Yi Tsang (Ochanomizu University)
On methods of constructing skew braces
- 14:30 – 15:20 Yuto Nogata (Hirosaki University)
Group zeta functions and subgroup lattice isomorphism in semidirect products
- 15:40 – 16:30 Shunichi Hirota (Kindai University)
The Eulerian function of finite groups and its application to the Rubik’s Cube group

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December 24 (Wed)

- 10:00 – 10:50 Hyungrok Jo (Yokohama National University)
Supersingular Isogeny Graphs and the Discrete Log Analogy
- 11:00 – 11:50 Tatsuyuki Hikita (Kyoto University)
Positivity and probability
- 13:30 – 14:20 Hiroyuki Nakasora (Okayama Prefectural University)
On the maximal coclique of Mathon-Rosa graph
- 14:30 – 15:20 Masato Kobayashi (Kanagawa University)
Deep and skeleton enumeration of Young tableaux
- 15:40 – 16:30 Shigeru Takamura (Kyoto University)
Higher group theory and its geometry, IV

December 25 (Thu)

- 10:00 – 10:50 Yuta Watanabe (Aichi University of Education)
Higher Terwilliger Algebras of Graphs
- 11:00 – 11:50 Hau-Wen Huang (National Central University)
From Verma modules to marginal weights: representations of the universal Askey-Wilson algebra