

RIMS Joint Research Activity

**Vertex algebras
and related topics**

September 9-13, 2024

RIMS, Kyoto University, Room 110

Conference Schedule

Monday, September 9, 2024

09:30-10:20 Anne Moreau: *On a series of simple affine VOAs at non-admissible level arising from rank one 4D SCFTs*

10:20-10:50 Coffee break

10:50-11:40 Angela Gibney: *Vector spaces of coinvariants and conformal blocks from representations of VOAs in families*

11:50-12:40 Qing Wang: *Affine vertex operator superalgebra $L_{\widehat{osp(1|2)}}(l, 0)$ at admissible level*

Chair: Ciupo Jiang

12:40-14:40 Lunch break

14:40-15:30 Ge Feng: *Quantum Manin Superspace, Quantum Grassmann superalgebra and beyond*

15:30-16:00 Coffee break

16:00-16:50 Juan Villarreal: *The center of the modular affine vertex algebra*

Chair: Justine Fasquel

Tuesday, September 10, 2024

09:30-10:20 Cuipo Jiang: *On singular vectors of universal affine vertex operator algebras and varieties of $L_k(sl_n)$*

10:20-10:50 Coffee break

10:50-11:40 Dražen Adamović: *On classification of irreducible modules of minimal unitary affine W -algebras*

11:50-12:40 Ayako Kubota: *Examples of the invariant Hilbert scheme of the Cox realization*

Chair: Angela Gibney

12:40-14:40 Lunch break

14:40-15:30 Kazuya Kawasetsu: *Rogers-Ramanujan exact sequences and free modules over free generalized vertex algebras*

15:30-16:00 Coffee break

16:00-16:50 Ivana Vukorepa: *Classification of irreducible modules for the affine vertex algebra $L_{-\frac{2n+1}{2}}(\mathfrak{sl}_{2n})$ in certain categories*

Chair: Ayako Kubota

Wednesday, September 11, 2024

09:30-10:20 Rei Inoue: *Cluster realization of Weyl groups and q -characters of affine quantum groups*

10:20-10:50 Coffee break

10:50-11:40 David Ridout: *Weight modules for affine vertex operator algebras with finite and infinite multiplicities*

11:50-12:40 Nina Yu: *On fusion products of twisted modules in permutation orbifolds*

Chair: Anne Moreau

12:40-14:40 Lunch break

14:40-15:30 Hongyan Guo: *Integral forms for affine vertex operator superalgebras and their modules*

15:30-16:00 Coffee break

16:00-16:50 Naoki Genra: *Twisted Zhu algebras*

Chair: Ivana Vukorepa

Thursday, September 12, 2024

09:30-10:20 Katrina Barron: *Irrational vertex operator algebras and graded pseudo-traces for strongly interlocked indecomposable non simple modules*

10:20-10:50 Coffee break

10:50-11:40 Sven Möller: *G-crossed categories of lattice orbifolds*

11:50-12:40 Li Ren: *On Kac-Wakimoto hypothesis*

Chair: Hongyan Guo

12:40-14:40 Lunch break

14:40-15:30 Justine Fasquel: *Connecting W-algebras and their representations*

15:30-16:00 Coffee break

16:00-16:50 Hannes Knötzele: *Categorical tools for rational orbifold theory*

Chair: Qing Wang

Friday, September 13, 2024

09:30-10:20 Andrew Linshaw: *Building blocks for W-algebras of classical types*

10:20-10:50 Coffee break

10:50-11:40 Tomoyuki Arakawa: *Generalized Grothendieck's simultaneous resolution and associated varieties of simple affine vertex algebra*

11:50-12:40 Shoma Sugimoto: *Shift system and nested Feigin-Tipunin construction*

Chair: Katrina Barron

12:40-14:40 Lunch break

14:40-15:30 Hao Li: *The applications of shift system*

15:30-16:00 Coffee break

16:00-16:50 Shigenori Nakatsuka: *Partial reductions among affine W-algebras of classical Lie types*

Chair: Nina Yu