Proceedings of the 52nd Symposium on Ring Theory and Representation Theory

August 26 (Mon.) – 31 (Sat.), 2019
Nagoya University, Japan

Edited by
Masahisa Sato
Aichi University

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Organizing Committee of The Symposium on Ring Theory and Representation Theory

The Symposium in 2019 was held jointly with the 8th China-Japan-Korea International Symposium on Ring Theory at Nagoya University from August 26 to August 31. Both were held as the 19th Nagoya International Mathematical Conference by Graduate School of Mathematics, Nagoya University.

The Symposium on Ring Theory and Representation Theory has been held annually in Japan and the Proceedings have been published by the organizing committee. The first Symposium was organized in 1968 by H. Tominaga, H. Tachikawa, M. Harada and S. Endo. After their retirement a new committee has been formed in 1997 to manage the Symposium, and its committee members are listed in the web page

http://www.ring-theory-japan.com/ring/h-of-ringsymp.html.

The present members of the committee are S. Kawata (Nagoya City Univ.), I. Kikumasa (Yamaguchi Univ.), I. Mori (Shizuoka Univ.), and T. Nishinaka (Univ. of Hyogo).

The Proceedings of each Symposium are edited by the program organizer. If you wish to have these Proceedings, please ask the program organizer of each Symposium or one of the committee members.

For information on ring theory and representation theory of groups and algebras (including schedules of meetings and symposiums), as well as ring mailing list service for registered members, please refer to the following websites, which are edited by K. Yamaura (Univ. of Yamanashi):

http://www.ring-theory-japan.com/ring/ (in Japanese)

http://www.ring-theory-japan.com/ring/japan/ (in English)

The Symposium in 2020 will be held at Yamaguchi University from September 14 (Mon) to September 17 (Thu). The program organizer is Yoshitomo Baba (Osaka Kyoiku University), and the local organizer is Yosuke Kuratomi (Yamaguchi University).

Shigeto Kawata
Nagoya, Japan
December, 2019

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Masahisa Sato
Aichi University, Japan
December, 2019

The 52nd Symposium on Ring Theory and Representation Theory

Program

August 26 (Monday)

11:20–12:10 Yuji Yoshino (Okayama University, JPN)

Auslander–Bridger theory for projective complexes over commutative Noetherian rings

13:40–14:00 Takuma Aihara (Tokyo Gakugei University, JPN)

On the weakly Iwanaga–Gorenstein property of gendo algebras

13:40–14:00 Tsiu-Kwen Lee (National Taiwan University, TWN)

A note on Skolem-Noether algebras

13:40–14:00 Ziyu Guo (Beijing University of Technology, CHN)

Cohomology rings and application in hypernormal formfor a class of 4-dimensiona vector fields

14:10–14:30 Takahiro Honma (Tokyo University of Science, JPN)

On the gendo-symmetric algebra of a trivial extension algebra

14:10–14:30 Tai Keun Kwak (Daejin University, KOR)

On CRP rings

14:10–14:30 Jung-Miao Kuo (National Chung Hsing University, TWN)

Partial group actions and partial Galois extensions

14:40–15:00 Takahide Adachi (Osaka Prefecture University, JPN)

On balanced Auslander–Dlab–Ringel algebras

14:40–15:00 Nam Kyun Kim (Hanbat National University, KOR)

Characterizations of radicals in skew polynomial and skew Laurent polynomial rings

14:40–15:00 Tsunekazu Nishinaka (University of Hyogo, JPN)

On Thompson's group F and its group algebra

15:10–15:30 Mayu Tsukamoto (Yamaguchi University, JPN)

Constructions of rejective chains

15:10–15:30 Kui Hu (Southwest University of Science and Technology, CHN / Kyungpook National University, KOR)

Some results on Noetherian Warfield domains

15:10–15:30 Diah Junia Eksi Palupi (Universitas Gadjah Mada, IDN)

The construction of a continuous linear representation from a topological group into topological module space over principle ideal domain

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The construction of a continuous linear representation from a topological group into topological module space over principle ideal domain

16:00–16:20 Toshinori Kobayashi (Nagoya University, JPN)
A characterization of local rings of countable representation type

16:00–16:20 Jianlong Chen (Southeast University, CHN)
Generalized inverses and clean decompositions

16:00–16:20 Nanqing Ding (Nanjing University, CHN)
On Enochs conjecture

16:30–16:50 Naoya Hiramatsu (National Institute of Technology, JPN)
A remark on graded countable Cohen–Macaulay representation type

16:30–16:50 Xiaofeng Chen (Southeast University, CHN)
The right core inverses of a product and a companion matrix

16:30–16:50 Lixin Mao (Nanjing Institute of Technology, CHN)
Relative coherent modules and semihereditary modules

17:00–17:20 Kei-ichiro Iima (National Institute of Technology, JPN)
On the 2-test modules of projectivity and weakly $\mathfrak{m}$-full ideals

17:00–17:20 Xiankun Du (Jilin University, CHN)
Triangularization of matrices and polynomial maps

17:00–17:20 Manoj Kumar Patel (National Institute of Technology Nagaland, IND)
A note on FI-semi injective modules

August 27 (Tuesday)

9:00–9:50 Bernhard Keller (University of Paris 7, FRA)
Tate–Hochschild cohomology from the singularity category

10:00–11:10 Tsutomu Nakamura (University of Verona, JPN)
Pure derived categories and weak balanced big Cohen–Macaulay modules

11:20–12:10 Sei-Qwon Oh (Chungnam National University, KOR)
Relationships between quantized algebras and their semiclassical limits

13:40–14:00 Sota Asai (Research Institute for Mathematical Sciences, JPN)
Wide subcategories and lattices of torsion classes

13:40–14:00 Naoki Endo (Waseda University, JPN)

Almost Gorenstein Rees algebras

13:40–14:00 Masahisa Sato (Aichi University, JPN)
Is Ware's problem true or not?

14:10–14:30 Toshiya Yurikusa (Nagoya University, JPN)
Density of g-vector cones from triangulated surfaces

14:10–14:30 Ryotaro Isobe (Chiba University, JPN)
Ulrich ideals in hypersurfaces

14:10–14:30 Yoshiharu Shibata (Yamaguchi University, JPN)
When is a quasi-discrete module quasi-projective?

14:40–15:00 Toshitaka Aoki (Nagoya University, JPN)
g-polytopes of Brauer graph algebras

14:40–15:00 Kazuho Ozeki (Yamaguchi University, JPN)
The structure of Sally modules and normal Hilbert coefficients

14:40–15:00 Gangyong Lee (Chungnam National University, KOR)
Rudimentary rings: Rings have a faithful indecomposable endoregular module

15:10–15:30 Yuta Kozakai (Shibaura Institute of Technology, JPN)
Mutations for star-to-tree complexes and pointed Brauer trees

15:10–15:30 Naoyuki Matsuoka (Meiji University, JPN)
Efficient generation of ideals in core subalgebras of the polynomial ring $k[t]$ over a field k

15:10–15:30 Derya Keskin Tütüncü (Hacettepe University, TUR)
Baer–Kaplansky classes in categories

16:00–16:20 Aaron Chan (Nagoya University, JPN)
Recollement of comodule categories over coalgebra objects

16:00–16:20 Yoshitomo Baba (Osaka Kyoiku University, JPN)
On two sided Harada rings and QF rings

16:00–16:20 Hwankoo Kim (Hoseo University, KOR)
A new semistar operation on a commutative ring and its applications

16:30–16:50 Zhaoyong Huang (Nanjing Univeristy, CHN)
The extension dimension of Abelian categories

16:30–16:50 Thomas Dorsey (Center for Communications Research, USA)
Questions and counterexamples on strongly clean rings

16:30–16:50 Izuru Mori (Shizuoka University, JPN)
Noncommutative Matrix Factorizations and Knörrer's Periodicity Theorem

17:00–17:20 Na'imah Hijriati (Universitas Gadjah Mada, IDN)
On representation of a ring with unity on a module over a ring with unity

17:00–17:20 Meimei Jiang (Jiangsu Second Normal University, CHN)
McCoy property over Jacobson radicals

17:00–17:20 Kenta Ueyama (Hirosaki University, JPN)
Knörrer's periodicity for skew quadric hypersurfaces

August 28 (Wednesday)

9:00–9:50 Pace P. Nielsen (Brigham Young University, USA)
Nilpotent polynomials with non-nilpotent coefficients

10:20–11:10 Haruhisa Enomoto (Nagoya University, JPN)
The Jordan–Hölder property, Grothendieck monoids and Bruhat inversions

11:20–12:10 Jiwei He (Hangzhou Normal University, CHN)
Noncommutative Auslander theorem and noncommutative quotient singularities

13:40–14:00 Kunio Yamagata (Tokyo Univeristy of Agriculture and Technology, JPN)
On a problem of socle-deformations of self-injective orbit algebras

13:40–14:00 Ayako Itaba (Tokyo University of Science, JPN)
Hochschild cohomology of Beilinson algebras of graded down-up algebras

14:10–14:30 Hideto Asashiba (Shizuoka University, JPN)
2-categorical Cohen–Montgomery duality between categories with I-pseudoactions and I-graded categories for a small category I

14:10–14:30 Guodong Shi (Southeast University, CHN)
Q-graded Hopf quasigroups

14:10–14:30 Tomohiro Itagaki (Tokyo University of Science, JPN)
The Hochschild cohomology of a class of exceptional periodic selfinjective algebras of polynomial growth

14:40–15:00 Yasuaki Ogawa (Nagoya University, JPN)
General heart construction and the Gabriel–Quillen embedding

14:40–15:00 Linlin Liu (Southeast University, CHN)
Rota–Baxter H-operators and pre-Lie H-pseudoalgebras over a cocommutative Hopf algebra H

14:40–15:00 Hideyuki Koie (National Institute of Technology, JPN)

An application of a theorem of Sheila Brenner for Hochschild extension algebras of a truncated quiver algebra

15:10–15:30 Xuefeng Mao (Shanghai University, CHN)
DG polynomial algebras and their homological properties

15:10–15:30 Shenglin Zhu (Fudan University, CHN)
Structures of irreducible Yetter?Drinfeld modules over quasi-triangular Hopf algebras

15:10–15:30 Satoshi Usui (Tokyo University of Science, JPN)
A Batalin–Vilkovisky differential on the complete cohomology ring of a Frobenius algebra

16:00–16:20 Haibo Jin (Nagoya University, JPN)
Cohen–Macaulay differential graded modules and negative Calabi–Yau configurations

16:00–16:20 Tongsuo Wu (Shanghai Jiao Tong University, CHN)
Boolean graphs – A Survey

16:00–16:20 Dong Yeol Oh (Chosun University, KOR)
The chain conditions on ideals in composite generalized power series rings

16:30–16:50 Norihiro Hanihara (Nagoya University, JPN)
Cohen–Macaulay modules over Yoneda algebras

16:00–16:20 Yuehui Zhang (Shanghai Jiao Tong University, CHN)
Directed partial orders over non-Archimedean fields

16:30–16:50 Mi Hee Park (Chung-Ang University, KOR)
Noetherian-like properties in polynomial and power series rings

17:00–17:20 Kota Yamaura (University of Yamanashi, JPN)
Happel's functor and homologically well-graded Iwanaga–Gorenstein algebras

17:00–17:20 Shaotao Zhu (Beijing University of Technology, CHN)
Quaternion ring and application in hypernormal form of 4 dimensional semi-simple nonlinear dynamical systems

17:00–17:20 Andreas Reinhart (Incheon National University, KOR)
On the monoid of ideals of orders in quadratic number fields

17:30– Conference dinner

August 29 (Thursday)

9:00–9:50 Michał Ziembowski (Warsaw University of Technology, POL)
Lie solvability in matrix algebras

10:20–11:10 Hiroyuki Minamoto (Osaka Prefecture University, JPN)
On a cubical generalization of preprojective algebras

11:20–12:10 Xianhui Fu (Northeast Normal University, CHN)
Ideal approximation theory

August 30 (Friday)

9:00–9:50 S. Paul Smith (University of Washington, USA)
Elliptic algebras

10:20–11:10 Yoshiyuki Kimura (Osaka Prefecture University, JPN)
Twist automorphism of quantum unipotent cells and the dual canonical bases

11:20–12:10 Nan Gao (Shanghai University, CHN)
A functorial approach to monomorphism category for species

13:40–14:00 De Chuan Zhou (Southwest University of Science and Technology, CHN Hoseo University, KOR)
On an open problem concerning the small finitistic dimension of a commutative ring

13:40–14:00 Iwan Ernanto (Universitas Gadjah Mada, IDN)
Arithmetic modules over generalized Dedekind domain

13:40–14:00 Ryo Kanda (Osaka University, JPN)
The characteristic variety of an elliptic algebra

14:10–14:30 Kaori Shimada (Meiji University, JPN)
On the radius of the category of extensions of matrix factorizations

14:10–14:30 Sutopo (Universitas Gadjah Mada, IDN)
Positively Graded rings which are maximal orders and Generalized Dedekind Rings

14:10–14:30 Masaki Matsuno (Shizuoka University, JPN)
AS-regularity of geometric algebras of plane cubic curves

14:40–15:00 Shinya Kumashiro (Chiba University, JPN)
The Auslander–Reiten conjecture for non-Gorenstein rings

14:40–15:00 Kazunori Nakamoto (University of Yamanashi, JPN)
An application of Hochschild cohomology to the moduli of subalgebras of the full matrix ring II

15:10–15:30 Maiko Ono (Okayama University, JPN)
On liftable DG modules over a commutative DG algebra

15:10–15:30 Indah Emilia Wijayanti (Universitas Gadjah Mada, IDN)
On generalized Dedekind modules over generalized Dedekind domain

16:00–16:20 Erik Darpö (Nagoya University, JPN)
Functors between higher cluster categories of type A

16:00–16:20 Guisong Zhou (Ningbo University, CHN)
The structure of connected (Hopf) algebras

16:30–16:50 Yingying Zhang (Hohai University, CHN)
Semibricks, wide subcategories and recollements

16:30–16:50 Libin Li (Yangzhou University, CHN)
The center subalgebra of the quantized enveloping algebra of a simple Lie algebra revisited

17:00–17:20 Xiaojin Zhang (Nanjing University of Information Science and Technology, CHN)
Tilting modules over Auslander–Gorenstein algebras

17:00–17:20 Zhixiang Wu (Zhejiang University, CHN)
Zhixiang Wu (Zhejiang University, CHN)

August 31 (Saturday)

9:00–9:50 Gyu Whan Chang (Incheon National University, KOR)
Unique factorization property of non-UFDs

10:20–11:10 Kenichi Shimizu (Shibaura Institute of Technology, JPN)
Action functor formalism

11:20–12:10 Susumu Ariki (Osaka University, JPN)
On cyclotomic quiver Hecke algebras of affine type

14:00–14:50 Pu Zhang (Shanghai Jiao Tong University, CHN)
Gorenstein-projective and semi-Gorenstein-projective modules