

2024 The Mathematical Society of Japan

AUTUMN MEETING

Dates: September 3rd (Tue)–6th (Fri), 2024

Venue: Osaka University

1–1 Toyonaka, Osaka, 560-0043, Japan

Contact to: Department of Mathematics, Graduate School of Science

Osaka University

1–1 Toyonaka, Osaka, 560-0043, Japan

E-mail osaka24sept@mathsoc.jp

The Mathematical Society of Japan

	I	II	III	IV	V	VI	VII	VIII	IX
	School of Sci. Bldg. J Nambu Yoichiro Hall	Sky Lecture Room B300	CELAS Bldg. B Big Lecture Room	CELAS Bldg. B B118	CELAS Bldg. A A201	CELAS Bldg. A A301	CELAS Bldg. B B107	CELAS Bldg. B B108	CELAS Bldg. B B218
3rd (Tue)	Geometry 9:30–11:45 14:15–16:15	Functional Equations 9:00–12:00 14:15–16:45	Algebra 9:30–12:00 15:30–18:00	Applied Mathematics 9:00–11:40 15:30–16:25	Functional Analysis 9:00–10:45	Complex Analysis 9:30–11:00	Statistics and Probability 9:30–11:50	Infinite Analysis 9:30–10:35	Topology 9:30–12:00
	Featured Invited Talks					13:00–14:00			
	Invited Talk 16:30–17:30	Invited Talk 17:00–18:00	Invited Talk 14:15–15:15	Invited Talks 14:15–15:15 16:40–17:40	Invited Talk 11:00–12:00	Invited Talk 14:20–15:20	Invited Talks 14:15–15:15 15:30–16:30	Invited Talk 10:45–11:45	Invited Talk 14:30–15:30
4th (Wed)		Functional Equations 9:00–12:00	Algebra 9:15–10:45 13:00–14:00	Applied Mathematics 9:00–11:40 13:00–14:00	Functional Analysis 10:00–11:45	Complex Analysis 9:30–11:00	Statistics and Probability 9:30–11:40	Infinite Analysis 9:30–10:30	
	Invited Talks 10:20–11:20 12:50–13:50	Invited Talk 13:00–14:00	Invited Talk 11:00–12:00		Invited Talk 13:00–14:00	Invited Talk 13:00–14:00		Invited Talk 10:45–11:45	
	MSJ Prizes Presentation (Osaka University Hall) (14:30–15:00)				Plenary Talks (Osaka University Hall) Autumn Prize Winner (15:15–16:15)				
				Tomoyuki Shirai (Kyushu Univ.) (16:30–17:30)					
Official Party (Cafeteria Kasane) (18:00–20:00)									
5th (Thu)	Geometry 9:30–11:45 14:15–18:00	Functional Equations 9:00–12:00 14:30–16:45	Algebra 9:30–12:00 14:15–16:45	Applied Mathematics 9:45–12:00 14:15–16:00	Functional Analysis 10:00–12:00 14:15–16:00	Real Analysis 9:00–12:00 14:15–16:45	Statistics and Probability 9:30–11:40	Found. of Math. & Hist. of Math. 9:30–11:30 15:30–17:00	Topology 9:30–12:00 15:40–18:00
	Featured Invited Talks					13:00–14:00			
		Invited Talk 17:00–18:00	Invited Talk 17:00–18:00	Invited Talk 16:15–17:15	Invited Talk 16:15–17:15	Invited Talk 17:00–18:00	Invited Talks 14:15–15:15 15:30–16:30	Invited Talk 14:15–15:15	Invited Talk 14:20–15:20
6th (Fri)	Geometry 9:30–11:45 14:15–16:45	Functional Equations 9:15–12:00 14:15–16:45	Algebra 9:15–10:45 14:15–17:30	Applied Mathematics 10:00–12:00 14:15–16:00		Real Analysis 10:00–12:00 14:15–15:05	Statistics and Probability 10:00–11:45 14:15–15:45	Found. of Math. & Hist. of Math. 9:30–10:30 14:15–16:30	Topology 9:30–12:00 14:20–16:50
	Featured Invited Talks					13:00–14:00			
		Invited Talk 17:00–18:00	Invited Talk 11:00–12:00	Invited Talk 16:15–17:15		Invited Talk 15:20–16:20		Invited Talk 10:45–11:45	

MSJ Spring Meeting 2024

Organizing Committee Chair of Organizing Committee Ryushi GOTO (Osaka Univ.)
 Chair of Executive Committee Katsutoshi YAMANOI (Osaka Univ.)
Organizer The Mathematical Society of Japan
Co-organizer Graduate School of Science, Osaka University
 Graduate School of Engineering Science, Osaka University
 Graduate School of Information Science and Technology, Osaka University
Acknowledgements We would like to thank Osaka University for their great cooperation in organizing this annual meeting.

Registration for Participation

Visit the following link to register.

<https://www.mathsoc.jp/activity/meeting/osaka24sept/reg.html> (in Japanese)

This survey is conducted in order to grasp the number of participants in advance.

Please register by September 2nd (Mon) if possible. (You can register during this annual meeting.)



Plenary Talks

September 4th (Wed) 2F & 3F, Osaka University Hall

Autumn Prize Winner	(15:15–16:15)
Tomoyuki Shirai (Kyushu Univ.)	Aspects of determinantal point processes	(16:30–17:30)

Featured Invited Talks

September 3rd (Tue)

Conference Room I

Goo Ishikawa (Hokkaido Univ.*) Singular curves of sub-Riemannian spaces and related topics
 (13:00–14:00)

Conference Room II

Tomoki Kawahira (Hitotsubashi Univ.) Analogies of complex dynamics, or an anthology (13:00–14:00)

Conference Room III

Guest Talk from Taiwan Mathematical Society

Hsueh-Yung Lin (Nat. Taiwan Univ.) On the cone conjectures for Calabi–Yau pairs (13:00–14:00)

September 5th (Thu)

Conference Room II

Shu Nakamura (Gakushuin Univ.) Microlocal methods in scattering theory (13:00–14:00)

Conference Room III

Yasutaka Shimizu (Waseda Univ.) Gerber–Shiu analysis in insurance mathematics: estimation
 of the scale functions for Levy risk processes (13:00–14:00)

September 6th (Fri)

Conference Room II

Yoshihiro Tonegawa (Tokyo Tech) Existence theorems for generalized mean curvature flow ... (13:00–14:00)

Conference Room III

Toshiro Kuwabara (Univ. of Tsukuba) Vertex algebras associated with symplectic resolutions (13:00–14:00)

Talks Invited by Research Sections and Special Session

September 3rd (Tue)

Algebra (Conference Room III)

Hailong Dao (Univ. of Kansas) Local singularities: algebraic, categorical and combinatorial aspects (14:15–15:15)

Geometry (Conference Room I)

Hiroshi Iritani (Kyoto Univ.)^b Quantum cohomology of blowups (16:30–17:30)

Complex Analysis (Conference Room VI)

Shinpei Baba (Osaka Univ.)^b Bers' simultaneous uniformization theorem and complex projective structures on Riemann surfaces (14:20–15:20)

Functional Equations (Conference Room II)

Fumihiko Nakano (Tohoku Univ.) Statistics for random Schroedinger operators and random walk (17:00–18:00)

Functional Analysis (Conference Room V)

Naoto Kumanogo (Kogakuin Univ.) Phase space Feynman path integrals on the torus —An analysis on path space (11:00–12:00)

Statistics and Probability (Conference Room VII)

Takuya Murayama (Kyushu Univ.) Some problems on the traces and driving functions of the Loewner differential equation (14:15–15:15)

Hiroaki Hata (Hitotsubashi Univ.) An optimal consumption and investment problem with a general nonlinear stochastic factor model and its policy improvement algorithm (15:30–16:30)

Applied Mathematics (Conference Room IV)

Tsuyoshi Miezaki (Waseda Univ.) Universal graph series, chromatic functions, and their index theory (14:15–15:15)

Award Lecture for the 2023 Applied Mathematics Prize

Mikio Kano (Ibaraki Univ.*) Two degree factors of graphs and related topics (16:40–17:40)

Topology (Conference Room IX)

Mai Katada (Kyushu Univ.) The stable Albanese homology of the IA-automorphism groups of free groups (14:30–15:30)

Infinite Analysis (Conference Room VIII)

Takahiko Nobukawa (Kobe Univ.) ${}_{10}W_9$, ${}_8W_7$ and variant of ${}_2\varphi_1$ as democratic q -hypergeometric equations (10:45–11:45)

September 4th (Wed)

Algebra (Conference Room III)

Sota Asai (Univ. of Tokyo) New trends in tilting theory: semibricks and TF equivalences (11:00–12:00)

Geometry (Conference Room I)

Award Lecture for the 2024 MSJ Geometry Prize

Hokuto Konno (Univ. of Tokyo) Diffeomorphism group and gauge theory (10:20–11:20)

Award Lecture for the 2024 MSJ Geometry Prize

Shinobu Hosono (Gakushuin Univ.) Families of Calabi-Yau manifolds and mirror symmetry . . . (12:50–13:50)

Complex Analysis (Conference Room VI)

Hajime Tsuji (Sophia Univ.*) Discrete Kähler–Ricci flows (13:00–14:00)

Functional Equations (Conference Room II)Mieko Tanaka (Tokyo Univ. of Sci.) Eigenvalue problems for (p, q) -Laplace equations with two parameters (13:00–14:00)**Functional Analysis** (Conference Room V)Hiroyoshi Tamori (Shibaura Inst. of Tech.) Strichartz estimates for the (k, a) -generalized Laguerre operator (13:00–14:00)**Infinite Analysis** (Conference Room VIII)

Atsushi Nakayashiki (Tsuda Coll.) Quasi-periodic solutions of the KP-hierarchy and vertex operator (10:45–11:45)

September 5th (Thu)

Foundation of Mathematics and History of Mathematics (Conference Room VIII)

Etsuro Date (Osaka Univ.*) On “Zenkoku Shijo Sugaku Danwakai” (14:15–15:15)

Algebra (Conference Room III)

Kenta Hasizume (Niigata Univ.) On minimal model theory for polarized log pairs (17:00–18:00)

Functional Equations (Conference Room II)

Takahisa Inui (Osaka Univ.) Global dynamics of threshold solutions for the nonlinear Schrödinger equation with repulsive Dirac delta potential (17:00–18:00)

Real Analysis (Conference Room VI)

Hiroki Saito (Nihon Univ.) Fractional integrals and related phenomena in analysis (17:00–18:00)

Functional Analysis (Conference Room V)

Shigeru Furuichi (Nihon Univ.) Generalized entropies and trace inequalities (16:15–17:15)

Statistics and Probability (Conference Room VII)

Yuma Uehara (Kansai Univ.) Predictive model selection for jump diffusion models (14:15–15:15)

Shogo Nakakita (Univ. of Tokyo) Recent development in theories of non-sparse high-dimensional statistics (15:30–16:30)

Applied Mathematics (Conference Room IV)Harunori Monobe (Osaka Metro. Univ.)^b On compact traveling waves in the singular limit problem of some reaction diffusion systems (16:15–17:15)**Topology** (Conference Room IX)Masahiko Yoshinaga (Osaka Univ.)^b Topology of real hyperplane arrangements (14:20–15:20)

September 6th (Fri)

Foundation of Mathematics and History of Mathematics (Conference Room VIII)

Tadatoshi Miyamoto (Nanzan Univ.) Families of sets by side conditions (10:45–11:45)

Algebra (Conference Room III)Kota Saito Arithmetic properties of the integer and fractional parts of
(Univ. of Tsukuba/Sophia Univ.) a sequence (11:00–12:00)**Functional Equations** (Conference Room II)

Jan Brezina (Kyushu Univ.) Long-time behavior of the dissipative compressible MHD .. (17:00–18:00)

Real Analysis (Conference Room VI)Kosuke Kita (Tohoku Univ.) On nonlinear heat equations with nonlinear boundary con-
ditions in a bounded domain (15:20–16:20)**Applied Mathematics** (Conference Room IV)Kengo Nakai (Okayama Univ.) Evaluation of a data-driven model using reservoir computing
from dynamical system point of view (16:15–17:15)

Open Lectures for Citizens

Date: September 7th (Sat) 14:00–16:30

Venue: Nambu Yoichiro Hall, 2F, Bldg. J, School of Science

Organizer: The Mathematical Society of Japan

Co-organizer: Graduate School of Science, Osaka University

Graduate School of Engineering Science, Osaka University

Graduate School of Information Science and Technology, Osaka University

Program: Opening Speech (14:00–14:05)

Seiichi Kamada (President of MSJ/Osaka Univ.)

Lecture 1: “Seeking the origin of randomness —from the viewpoint of computation”

..... (14:10–15:10)

Hiroshi Sugita (Osaka Univ.)

Lecture 2: “On Oda’s conjecture” (15:30–16:30)

Osamu Fujino (Kyoto Univ.)

Web Page: <https://www.mathsoc.jp/en/meeting/osaka24sept/>

Foundation of Mathematics and History of Mathematics

September 5th (Thu) Conference Room VIII

9:30–11:30

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|---|--|---|----|
| 1 | Katsushi Waki (Yamagata Univ.) | Composition of the SAKUMA Collection Digital Archive | 5 |
| 2 | Noriko Tanaka (Naragakuen Univ.)
Nozomu Matsubara (Univ. of Tokyo*) | Probability and statistics for real-world —Pattern theory | 15 |
| 3 | Makoto Tamura (Osaka Sangyo Univ.) | On the “Suanshu” Jiazhong of Qin dynasty bamboo slips housed at Peking University | 15 |
| 4 | Hideyuki Majima (Ochanomizu Univ.*) | On the number 3.16 as Pi in JINKOUKI by YOSHIDA Mitsuyoshi | 15 |
| 5 | Noriko Tanaka (Naragakuen Univ.)
Tsukane Ogawa (Yokkaichi Univ.) | A Study on the Takuma School “Kijutsu Kairoho (Yakushiki-kyutsu)” | 15 |
| 6 | Tsukane Ogawa (Yokkaichi Univ.)
Noriko Tanaka (Naragakuen Univ.) | On the cultural theory of mathematical plates | 15 |
| 7 | Ken Saito
(Osaka Pref. Univ.*/Yokkaichi Univ.) | Hypsicles’ work on regular polyhedra (so-called Book 14 of the <i>Elements</i>) | 15 |

11:45–12:00 Mathematics History Team Meeting

14:15–15:15 Talk Invited by Section on Foundation and History of Mathematics

- Etsuro Date (Osaka Univ.*) On “Zenkoku Shijo Sugaku Danwakai”

15:30–17:00

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|----|--|---|----|
| 8 | Koichiro Ikeda (Hosei Univ.) | On stable theories having a type with infinite weight | 15 |
| 9 | Hisashi Aratake
(Oyama Nat. Coll. of Tech.) | Axiomatizability of models represented by sheaves | 15 |
| 10 | Koki Okura (Univ. of Tsukuba) | Avoiding cell decomposition | 15 |
| 11 | Ikuo Yoneda (Tokuyama Coll. of Tech.) | Weak one-basedness and CM-triviality in rosy theories | 15 |
| 12 | Wataru Komine (Univ. of Tsukuba)
Akito Tsuboi (Univ. of Tsukuba*) | On prime models of locally o-minimal theories | 15 |
| 13 | Hiroataka Kikyo (Kobe Univ.)
Akito Tsuboi (Univ. of Tsukuba*) | On dividing and forking in random hypergraphs | 15 |

September 6th (Fri) Conference Room VIII

9:30–10:30

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|----|-----------------------------------|---|----|
| 14 | Kenta Tsukuura (Hosei Univ.) | Minimal walk method and semistationary subsets in Namba forcing extensions | 15 |
| 15 | Teruyuki Yorioka (Shizuoka Univ.) | Some preservation theorems for forcing notions with models as side conditions | 15 |
| 16 | Teruyuki Yorioka (Shizuoka Univ.) | Uncountable linear orders in Y-proper forcing axiom | 15 |
| 17 | Toshimichi Usuba (Waseda Univ.) | The tightness function of ultrapower embeddings | 15 |

10:45–11:45 Talk Invited by Section on Foundation and History of Mathematics

Tadatoshi Miyamoto (Nanzan Univ.) Families of sets by side conditions

12:00–12:15 Research Section Assembly**14:15–16:30**

- 18 Kohtaro Tadaki (Chubu Univ.) A refinement of quantum mechanics by algorithmic randomness IV: Continuous spectrum 15
- 19 Masaaki Kumazawa (Abeno Shogaku High School) b On a characterization of the upper semi-lattice in BCK-algebras 15
- 20 Akinori Maniwa (Tokyo Tech) Syntactic cut-elimination for provability logic **GL** via nested sequents
Ryo Kashima (Tokyo Tech) 15
- 21 Yuta Sato (Kobe Univ.) Interpolation properties of some extensions of the pure logic of necessitation **N** 15
- 22 Haruka Kogure (Kobe Univ.) Interpolation properties for the bimodal provability logic **GR** 15
Taishi Kurahashi (Kobe Univ.)
- 23 Taishi Kurahashi (Kobe Univ.) On some characterizations of collection principles 15
- 24 Taishi Kurahashi (Kobe Univ.) On essential incompleteness restricted to finite extensions 15
Albert Visser (Utrecht Univ.)
- 25 Tatsuya Shimura (Nihon Univ.) A family of intermediate propositional logics with strong disjunction property and finite model property 15

Algebra

September 3rd (Tue) Conference Room III

9:30–12:00

- 1 Kaveh Mousavand (Okinawa Inst. of Sci. and Tech. Grad. Univ.) Hom-orthogonal modules and bricks 15
- 2 Naoya Hiramae (Kyoto Univ.) On τ -tilting finiteness of group algebras of some semidirect products
Yuta Kozakai (Tokyo Univ. of Sci.) 15
- 3 Naoko Kunugi (Tokyo Univ. of Sci.) Morita equivalences for the principal blocks of 2-dimensional general
Kyoichi Suzuki (Tokyo Univ. of Sci.) linear groups 15
- 4 Masahiko Miyamoto (Univ. of Tsukuba*) 1-point functions on a VOA of moonshine type 15
- 5 Ching Hung Lam (Academia Sinica) Automorphism groups of parafermion vertex operator algebras: general
Xingjun Lin (Wuhan Univ.) case 10
Hiroki Shimakura (Fukuoka Univ.)
- 6 Kazuya Kawasetsu (Kumamoto Univ.) Rogers–Ramanujan exact sequences and free modules over free generalized vertex algebras 15

- 7 Naoki Genra (Univ. of Tokyo) Reduction by stages on W -algebras 10
- 8 Ryota Wakao (Okayama Univ. of Sci.) On the construction of certain semisimple Hopf superalgebras 10
- 9 Sin Yi Tsang (Ochanomizu Univ.) On skew brace representations 15
Yuta Kozakai (Tokyo Univ. of Sci.)
- 10 Kento Ogawa (Hiroshima Univ.) An algebraic generalization of association schemes 10

14:15–15:15 Talk Invited by Algebra Section

- Hailong Dao (Univ. of Kansas) Local singularities: algebraic, categorical and combinatorial aspects

15:30–18:00

- 11 Jun Horiuchi (Nippon Inst. of Tech.) Matijevic–Roberts type theorems for certain graded rings 13
Kazuma Shimomoto (Tokyo Tech)
- 12 Ryo Ishizuka (Tokyo Tech) A generalization of Kunz’s theorem to mixed characteristic via p -adic
Kei Nakazato (Proxima Tech. Inc.) cohomology theory 13
- 13 Akihiro Higashitani (Osaka Univ.) Non-finitely generated monoids corresponding to finitely generated sub-
Koichiro Tani (Osaka Univ.) algebras 13
- 14 Akiyoshi Tsuchiya (Toho Univ.) Quadratic toric rings and Kempe equivalence 13
Hidefumi Ohsugi
(Kwansei Gakuin Univ.)
- 15 Koji Matsushita (Osaka Univ.) Dual F -signatures of Veronese subrings and Segre products of polyno-
mial rings 13
- 16 Sora Miyashita (Osaka Univ.) A linear variant of the nearly Gorenstein property 13
- 17 Tadahito Harima (Niigata Univ.) A binary tree of complete intersections with the strong Lefschetz prop-
Satoru Isogawa erty 10
(Nat. Inst. of Tech., Kumamoto Coll.)
Junzo Watanabe (Tokai Univ.*)
- 18 Shuhei Tsujie (Hokkaido Univ. of Edu.) On a q -analogue using Jackson integrals of logarithmic vector fields of
Daisuke Suyama (Hokkai-Gakuen Univ.) a braid multiarrangement of hyperplanes 10
- 19 Hideo Kojima (Niigata Univ.) Retracts of polynomial rings in three variables 13
Takanori Nagamine (Nihon Univ.)
Riko Sasagawa
(Tokamachi High School)
- 20 Naoki Endo (Meiji Univ.) Cohen–Macaulay normal Rees algebras of integrally closed ideals 13

September 4th (Wed) Conference Room III

9:15–10:45

- 21 Hideya Watanabe (Rikkyo Univ.) Integrable modules for quantum symmetric pair coideal subalgebras
..... 10

- 22 Robert Muth (Duquesne Univ.) A new construction of simple modules for type A KLR algebras 15
Thomas Nicewicz
(Washington and Jefferson Coll.)
Liron Speyer
(Okinawa Inst. of Sci. and Tech. Grad. Univ.)
Louise Sutton
(Okinawa Inst. of Sci. and Tech. Grad. Univ.)
- 23 Takeshi Suzuki (Okayama Univ.) Poset structure concerning cylindric diagrams 15
Kento Nakada (Okayama Univ.)
Yoshitaka Toyosawa (Okayama Univ.)
- 24 Shunsuke Kano (Tohoku Univ.) Entropy of cluster DT transformations and the finite-tame-wild tri-
Tsukasa Ishibashi (Tohoku Univ.) chotomy of acyclic quivers 15
- 25 Ryo Uchiyumi (Osaka Univ.) The quasi-polynomiality of mod q permutation representations for a
Masahiko Yoshinaga (Osaka Univ.) linear finite group action on a lattice 15

11:00–12:00 Talk Invited by Algebra Section

- Sota Asai (Univ. of Tokyo) New trends in tilting theory: semibricks and TF equivalences

13:00–14:00

- 26 Shinya Kumashiro When are trace ideals finite? 15
(Osaka Inst. of Tech.)
- 27 Kaito Kimura (Nagoya Univ.) On the existence of counterexamples for vanishing problems of Ext and
Justin Lyle (SLMath) Tor 15
Yuya Otake (Nagoya Univ.)
Ryo Takahashi (Nagoya Univ.)
- 28 Yu Saito (Shizuoka Univ.) Classification of 3-dimensional cubic AS-regular algebras whose point
Masaki Matsuno (Tokyo Univ. of Sci.) schemes are reducible 15
Ayako Itaba (Tokyo Univ. of Sci.)
- 29 Yutaka Yoshii (Ibaraki Univ.) Some linear isomorphisms induced by the multiplication in the hyper-
algebra of a simple algebraic group 10

September 5th (Thu) Conference Room III

9:30–12:00

- 30 Yuki Imamura (Osaka Univ.) A formal category theoretic approach to the homotopy theory of dg
categories 15
- 31 Yuji Tsuno On the Grothendieck resolution for a certain finite flat commutative
(Nat. Inst. of Tech., Wakayama Coll.) group scheme of order p^n over an \mathbb{F}_p -algebra 15
- 32 Fumitake Hyodo Global properties of a Hecke ring associated with the Heisenberg Lie
(Kawasaki Univ. of Med. Welfare) algebra 15
- 33 Akinari Hoshi (Niigata Univ.) Norm one tori and Hasse norm principle, III: Degree 16 case 15
Kazuki Kanai (Kure Nat. Coll. of Tech.)
Aiichi Yamasaki (Kyoto Univ.)
- 34 Taiga Adachi (Kyushu Univ.) Iwasawa theory for weighted graphs 15
Kosuke Mizuno (Nagoya Univ.)
Sohei Tateno (Nagoya Univ.)

- 35 Naoki Kumakawa (Waseda Univ.) On \mathbb{Z}_2 -extensions unramified outside $(1 + \sqrt{-7})/2$ 10
Yasushi Mizusawa (Rikkyo Univ.)
- 36 Ryota Tajima (Kyushu Univ.) The p -adic constant for mock modular forms and the degree of a certain
 modular parameterization of CM elliptic curves. 15
- 37 Kenji Sakugawa (Shinshu Univ.) Integrality of Hecke eigenvalues for Hilbert and Siegel modular forms
Shingo Sugiyama (Kanazawa Univ.) 10
- 38 Kohei Takehira (Tohoku Univ.) On the dynamical height zeta functions 15

12:00–12:30 Research Section Assembly**14:15–16:45**

- 39 Tomohiro Iwami (Kyushu Inst. of Tech.) Analogous S. Bloch's formula related to recovering conductors of $(\mathbb{Q}$ -
)conic bundles via three-dimensional Miyaoka–Yau type inequality with
 third Chern classes 15
- 40 Michio Amano (Meisei Univ.) On the injectivity of certain homomorphisms between extensions of $\widehat{\mathcal{G}}^{(\lambda)}$
 by $\widehat{\mathbb{G}}_m$ over a $\mathbb{Z}_{(p)}$ -algebra 15
- 41 Rin Gotou (Osaka Inst. of Tech.)^b Marking-weighted tree stratification of geometric moduli spaces of dy-
 namical systems over \mathbf{P}^1 15
- 42 Yuta Takada (Univ. of Tokyo) Dynamical degrees of automorphisms of K3 surfaces with Picard number
 2 15
- 43 Taiki Takatsu (Tokyo Univ. of Sci.) On automorphism groups of K3 surfaces and their virtual cohomological
 dimension 15
- 44 Hisashi Usui An example of the explicit generators of the Mordell–Weil lattice of a
 (Gunma Nat. Coll. of Tech.) supersingular elliptic K3 surface in characteristic 11 15
- 45 Ken Sato (Tokyo Tech.)^b On higher Chow cycles on K3 surfaces 15
- 46 Norihiko Minami Algebro-geometric invariant reflected in counter-examples the integral
 (Yamato Univ./Nagoya Inst. of Tech.)* conjectures of Hodge and Tate 15

17:00–18:00 Talk Invited by Algebra Section

- Kenta Hasizume (Niigata Univ.) On minimal model theory for polarized log pairs

September 6th (Fri) Conference Room III

9:15–10:45

- 47 Takeshi Torii (Okayama Univ.) The moduli of subalgebras of the full matrix ring (3) 15
Kazunori Nakamoto
 (Univ. of Yamanashi)
- 48 Takuya Saito (Hokkaido Univ.) Recent developments in the combinatorics of discriminantal arrange-
Simona Settepanella (Torino Univ.) ments 15
 Pragnya Das
- 49 Akihiro Higashitani (Osaka Univ.) Characteristic quasi-polynomials of restrictions of Shi arrangements of
Norihiro Nakashima type B 15
 (Nagoya Inst. of Tech.)
- 50 Nobukazu Kowaki (Osaka Univ.) Tropical hyperplane arrangements and combinatorial mutations of the
 matching field polytopes of Grassmannians 15
- 51 Mao Nagamine (Hokkaido Univ.) A -hypergeometric series with parameters in the core 15

11:00–12:00 Talk Invited by Algebra Section

Kota Saito (Univ. of Tsukuba/Sophia Univ.) Arithmetic properties of the integer and fractional parts of a sequence

14:15–17:30

- 52 Xin Ren (Osaka Univ.) Arithmetic on q -deformed rational numbers 15
 Takeyoshi Kogiso (Josai Univ.)
 Kengo Miyamoto (Ibaraki Univ.)
 Michihisa Wakui (Kansai Univ.)
 Kohji Yanagawa (Kansai Univ.)
- 53 Yasuaki Gyoda (Univ. of Tokyo) $SL(2, \mathbb{Z})$ -matrixization of generalized Markov numbers 15
 Shuhei Maruyama (Kanazawa Univ.)
 Yusuke Sato (Osaka Inst. of Tech.)
- 54 Akihiro Goto (Kyushu Univ.) On some values which do not belong to the image of Ramanujan's tau function 15
- 55 Hayato Kanno (Tohoku Univ.) The Fourier expansion of multiple Eisenstein series of arbitrary level and Goncharov's coproduct formula 15
- 56 Yoshitaka Sasaki (Tohoku Gakuin Univ.) On multiple Mahler measures and multiple T values 10
- 57 Takumi Anzawa (Nagoya Univ.) Certain congruence of q -Fibonacci sequence and related finite transcendental numbers 15
 Hidetaka Funakura (Nagoya Univ.)
- 58 Fumi Ogihara (Sophia Univ.) On the short interval average of the representation function for a variant of the Hardy–Littlewood conjecture 15
 Yuta Suzuki (Rikkyo Univ.)
- 59 Yuichiro Toma (Nagoya Univ.) On the averages of quadratic twists of the Möbius function 10
- 60 Yuuya Yoshida (Nagoya Inst. of Tech.) The numbers of solutions of linear equations in Piatetski-Shapiro sequences 15
- 61 Yuya Kanado (Nagoya Univ.) Normality of algebraic numbers and the Riemann zeta function 15
 Kota Saito (Univ. of Tsukuba/Sophia Univ.)
- 62 Tomohiro Yamada (Kobe Univ./Osaka Univ.) On an analogue of superperfect numbers involving both ordinary and infinitary divisors 15
- 63 Masaya Kitajima (Nagoya Univ.) Generalized Bessel functions corresponding to lattice point problems of generalized circles 15

Geometry

September 3rd (Tue) Conference Room I

9:30–11:45

- 1 Yoshito Ishiki (Tokyo Metro. Univ.) Spaces of metrics are Baire 15

13 Geometry

- 2 Yoshiki Jikumaru (Toyo Univ.) Symmetries in the linear theory of the deformation of thin shells 15
- 3 Kenzi Satô (Tamagawa Univ.) A intrinsic characterization of a centroid of a spherical or hyperbolic simplex 15
- 4 Yuichiro Sato (Waseda Univ.) Spatially homogeneous solutions of vacuum Einstein equations in general dimensions 15
Takanao Tsuyuki
(Hokkaido Information Univ.)
- 5 Shoichi Fujimori (Hiroshima Univ.) Surfaces with concentric or parallel K -contours 15
Yu Kawakami (Kanazawa Univ.)
Masatoshi Kokubu (Tokyo Denki Univ.)
- 6 Yuta Sasahara (Tokyo Metro. Univ.) 4-dimensional isoparametric hypersurfaces of index 2 in the pseudo-Riemannian space forms 15
- 7 Jun O'Hara (Chiba Univ.) Residues of manifolds and curvatures 15
- 14:15–16:15**
- 8 Hiroaki Nagaya (Hiroshima Univ.) A study of bornological proper actions 10
- 9 Taika Okuda (Tokyo Univ. of Sci.) Recent progress on twisted Fock representations of complex Grassmannians 15
Akifumi Sako (Tokyo Univ. of Sci.)
- 10 Kazushi Kobayashi (Mie Univ.) On a B-field transform of generalized complex structures over complex tori 15
- 11 Yuto Yamamoto (RIKEN) The Gross–Siebert program and non-archimedean SYZ fibrations 15
- 12 Masao Jinzenji (Okayama Univ.) Elliptic virtual structure constants and generalizations of BCOV-Zinger formula to projective fano hypersurfaces 15
Ken Kuwata
(Kagawa Nat. Coll. of Tech.)
- 13 Natsuo Miyatake (Tohoku Univ.) Quantification and evaluation in the degree of mutual misalignment of harmonic metrics on cyclic Higgs bundles 15

16:30–17:30 Talk Invited by Geometry Section

Hiroshi Iritani (Kyoto Univ.)^b Quantum cohomology of blowups

September 4th (Wed) Conference Room I

10:00–10:15 Presentation Ceremony for the 2024 MSJ Geometry Prize**10:20–11:20 Award Lecture for the 2024 MSJ Geometry Prize**

Hokuto Konno (Univ. of Tokyo) Diffeomorphism group and gauge theory

12:50–13:50 Award Lecture for the 2024 MSJ Geometry Prize

Shinobu Hosono (Gakushuin Univ.) Families of Calabi-Yau manifolds and mirror symmetry

September 5th (Thu) Conference Room I

9:30–11:45

- 14 Kentaro Yamaguchi Submanifolds with boundary and corners in Delzant polytopes associated to affine subspaces 15
(Tokyo Metro. Univ.)

14 Geometry

- 15 Masahiro Morimoto (Tokyo Metro. Univ.) The parallel transport map over affine symmetric space 15
- 16 Takahiro Hashinaga (Saga Univ.) Local isometric embeddings of three-dimensional homogeneous spaces
Yoshio Agaoka (Hiroshima Univ.*) into four-dimensional space forms 15
- 17 Makiko Sumi Tanaka (Tokyo Univ. of Sci.) Maximal antipodal subgroups and covering homomorphisms with odd
degree 15
Hiroyuki Tasaki
(Tokyo Metro. Univ./Univ. of Tsukuba)
- 18 Tadashi Fujioka (Osaka Univ.) A sphere theorem for a positively curved homology manifold and its
links 15
- 19 Shota Hamanaka (Osaka Univ.) Scalar curvature lower bounds of steady gradient Ricci soliton 15
- 20 Kei Funano (Tohoku Univ.) A universal inequality for Neumann eigenvalues of the Laplacian 10

14:15–18:00

- 21 Takahiro Aoi (Nat. Inst. of Tech., Wakayama Coll.) Skoda–Zeriahi type integrability and entropy compactness for Poincaré
type Kähler metrics 15
- 22 Naoto Yotsutani (Kagawa Univ.) Chow stability of λ -stable toric varieties 15
King Leung Lee
(IMAG, Univ. of Montpellier)
- 23 Naoto Yotsutani (Kagawa Univ.) Numerical semistability of projective toric varieties 15
- 24 Shuhei Yonehara (Osaka Univ.) Actions of cosymplectic groupoids and a reduction theorem 15
- 25 Yuji Hirota (Azabu Univ.) On reduction of vector-valued symplectic manifolds with homotopy
Noriaki Ikeda (Ritsumeikan Univ.) momentum sections 15
- 26 Tomoya Nakamura (Kogakuin Univ.) A generalization of Koszul–Vinberg manifolds 15
Naoki Kimura (Tokyo Univ. of Sci.)
- 27 Hiroshi Sawai (Numazu Nat. Coll. of Tech.) Lee form on a non-Vaisman LCK solvmanifold associated to a one-
dimensional of a nilmanifold 15
- 28 Yoshiaki Suzuki (Niigata Univ.) The spectrum of the Folland–Stein operator on Heisenberg Bieberbach
manifolds 15
- 29 Isami Koga (Kyushu Int. Univ.) Classification of Sp -equivariant harmonic maps from complex projective
Yasuyuki Nagatomo (Meiji Univ.) spaces into complex projective spaces 15
- 30 Takashi Hashimoto (Tottori Univ.) A hyperkähler metric on a complex coadjoint orbit 15
- 31 Genki Ishikawa (Ritsumeikan Univ.) An elliptic fibration arising from the Lagrange top and its monodromy
..... 15

September 6th (Fri) Conference Room I

9:30–11:45

- 32 Sheng-Chen Mao (Fudan Univ.) On gradient estimates of the heat semigroups on step-two Carnot groups
Ye Zhang 15
(Okinawa Inst. of Sci. and Tech. Grad. Univ.)

33	Xiaodan Zhou (Okinawa Inst. of Sci. and Tech. Grad. Univ.)	Non-uniqueness of Green functions on metric spaces	15
34	Naotaka Kajino (Kyoto Univ.) Ryosuke Shimizu (Waseda Univ.)	Sharp Hölder regularity estimates of harmonic functions for p -resistance forms	15
35	Naotaka Kajino (Kyoto Univ.) Ryosuke Shimizu (Waseda Univ.)	On singularity of p -energy measures among distinct values of p for some p.-c.f. self-similar sets	15
36	Naomichi Nakajima (Shibaura Inst. of Tech.)	Dually flat geometry of plane curves and singularity theory	15
37	Kaito Kayo (Hokkaido Univ.)	Statistical manifold with degenerate metric	15
38	Hikoza Kobayashi (Hiroshima Univ.) Yu Ohno (Hokkaido Univ.) Takayuki Okuda (Hiroshima Univ.) Hiroschi Tamaru (Osaka Metro. Univ.)	Moduli spaces of left-invariant statistical structures, dually-flatness and conjugate symmetries	15
14:15–16:45			
39	Kazumasa Narita (Nagoya Univ.)	Geometric interpretation of majorization and its application to graph realization problem	15
40	Takumi Matsuka (Tokyo Metro. Univ.) Tomohiro Fukaya (Tokyo Metro. Univ.)	Boundary of free products of coarsely convex spaces	15
41	Masato Mimura (Tohoku Univ.) Morimichi Kawasaki (Hokkaido Univ.) Mitsuaki Kimura (Osaka Dent. Univ.) Takahiro Matsushita (Shinshu Univ.) Shuhei Maruyama (Kanazawa Univ.)	Generalized mixed Bavard duality	15
42	Tetsu Toyoda (Kogakuin Univ.)	The Andoni–Naor–Neiman inequalities and isometric embeddability into a CAT(0) space	15
43	Hiroyasu Izeki (Keio Univ.) Anders Karlsson (Univ. Geneva)	A fixed-point property of finitely generated torsion groups with subexponential growth for CAT(0) spaces	15
44	Syota Esaki (Oita Univ.) Daisuke Kazukawa (Kyushu Univ.) Ayato Mitsuishi (Fukuoka Univ.)	Convergence of l_p -product Gaussian spaces and its applications	15
45	Shin-ichi Oguni (Ehime Univ.) Motoko Kato (Univ. of Ryukyus)	Acyindrical hyperbolicity of Artin groups associated with graphs that are not cliques	15

Complex Analysis

September 3rd (Tue) Conference Room VI

9:30–11:00

1	Shunji Horiguchi	Newton–Mandelbrot set and Murase–Mandelbrot set	15
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- 2 Masaki Tsukamoto (Kyoto Univ.) Rate distortion dimension of random Brody curves 15
- 3 Michael Heins (Univ. of Würzburg)^b Peschl–Minda derivatives and convergent Wick star products 15
Annika Moucha (Univ. of Würzburg)
Oliver Roth (Univ. of Würzburg)
Toshiyuki Sugawa (Tohoku Univ.)
- 4 Katsuhiko Matsuzaki (Waseda Univ.) The Teichmüller space of circle diffeomorphisms in the Zygmund smooth class 15
- 5 Kento Sakai (Osaka Univ.) Degeneration of hyperbolic surfaces with boundary via harmonic maps 15

14:20–15:20 Talk Invited by Complex Analysis Section

- Shinpei Baba (Osaka Univ.)^b Bers' simultaneous uniformization theorem and complex projective structures on Riemann surfaces

September 4th (Wed) Conference Room VI

9:30–11:00

- 6 Takanori Ayano (Osaka Metro. Univ.) Expressions of hyperelliptic functions of genus $2g$ in terms of hyperelliptic functions of genus g 15
- 7 Tatsuhiro Honda (Senshu Univ.) Bohr's phenomena for pluriharmonic mappings in a separable complex Hilbert space 15
Hidetaka Hamada
(Kyushu Sangyo Univ.)
- 8 Takeo Ohsawa (Nagoya Univ.)^b On Stein neighborhood basis of certain Stein domains 15
- 9 Yuta Watanabe (Chuo Univ.) ω -trace and Griffiths positivity for singular Hermitian metrics 15
- 10 Taiji Marugame Ambient and Poincaré metrics for CR 3-manifolds corresponding to Einstein ACH metrics 15
(Univ. of Electro-Comm.)

13:00–14:00 Talk Invited by Complex Analysis Section

- Hajime Tsuji (Sophia Univ.*) Discrete Kähler–Ricci flows

Functional Equations

September 3rd (Tue) Conference Room II

9:00–12:00

- 1 Yumiko Takei A system of differential-difference equations and an integral representation of solutions for the hypergeometric functions 12
(Ibaraki Nat. Coll. of Tech.)
Yoshitsugu Takei (Doshisha Univ.)
- 2 Keiji Matsumoto (Hokkaido Univ.) A system of hypergeometric differential equations in m variables I, the rank and the singular locus. 12
Jyoichi Kaneko (Univ. of Ryukyus*)
Katsuyoshi Ohara (Kanazawa Univ.)
Tomohide Terasoma (Hosei Univ.)

- 3 Keiji Matsumoto (Hokkaido Univ.)
Jyoichi Kaneko (Univ. of Ryukyus*)
Katsuyoshi Ohara (Kanazawa Univ.)
Tomohide Terasoma (Hosei Univ.) A system of hypergeometric differential equations in m variables II, the monodromy representation. 12
- 4 Tatsuya Hosoi (Univ. of Tokyo)
Hidetaka Sakai (Univ. of Tokyo) A study on the bilinear equation of the sixth Painlevé transcendents 12
- 5 Tatsuya Hosoi (Univ. of Tokyo) Formal series solutions of fourth-order homogeneous quadratic differential equations with complex powers depending on initial values and their convergence 12
- 6 Junya Nishiguchi (Tohoku Univ.) On regularity of mild solutions for linear delay differential equations 12
- 7 Mingzhu Qu (Osaka Pref. Univ.)
Hideaki Matsunaga
(Osaka Metro. Univ.) Asymptotic stability in a linear differential equation with two kinds of delays 12
- 8 Hiroyuki Usami (Gifu Univ.) Asymptotic behavior of positive solutions of perturbed third order half-linear ordinary differential equations 12
- 9 Masakazu Onitsuka
(Ookayama Univ. of Sci.)
Satoshi Tanaka (Tohoku Univ.) Box-counting dimension of spiral orbits for two-dimensional nonautonomous nonlinear differential systems 12
- 10 Yasuhisa Saito (Shimane Univ.) Backward bifurcation of an epidemic model with treatment capacity and the proportion of severe cases 12
- 11 Kazuki Ishibashi
(Hiroshima Inst. of Tech.) Wintner-type nonoscillation theorems for Sturm–Liouville differential equations using a PD controller 12
- 12 Tetsutaro Shibata (Hiroshima Univ.) Asymptotics of solution curves of Kirchhoff type elliptic equations with logarithmic Kirchhoff function 12
- 13 Satoshi Masaki (Hokkaido Univ.) On representation of solutions to a class of systems of ordinary differential equations 12
- 14:15–16:45**
- 14 Tatsuki Mori (Musashino Univ.)
Sohei Tasaki (Hokkaido Univ.)
Tohru Tsujikawa
(Univ. of Miyazaki*/Meiji Univ.)
Yasuhito Miyamoto (Univ. of Tokyo)
Shoji Yotsutani (Ryukoku Univ.*) Stability of stationary solutions of a phase-field model 12
- 15 Shoji Yotsutani (Ryukoku Univ.*)
Sohei Tasaki (Hokkaido Univ.)
Tohru Tsujikawa
(Univ. of Miyazaki*/Meiji Univ.)
Yasuhito Miyamoto (Univ. of Tokyo)
Tatsuki Mori (Musashino Univ.) All eigenvalues and eigenfunctions of a nonlocal linearized eigenvalue problem 12
- 16 Yuta Ishii (Ibaraki Nat. Coll. of Tech.) Existence of spiky stationary solutions for the Gierer–Meinhardt model with advection term on the Y -shaped metric graph 12
- 17 Ryunosuke Mori (Meiji Univ.)
Hiroshi Matano (Meiji Univ.) Blocking and propagation in two-dimensional cylinders with spatial periodicity 12

- 18 Ayuki Sekisaka (Meiji Univ.) Eigenvalue problem and the Evans function of reaction-diffusion systems
Hiroko Yamamoto (RIKEN) in cylinder domains 12
- 19 Yuki Kaneko (Kanto Gakuin Univ.) Stability and bifurcation diagram for a shadow Gierer–Meinhardt sys-
Yasuhito Miyamoto (Univ. of Tokyo) tem in one spatial dimension 10
Tohru Wakasa (Kyushu Inst. of Tech.)
- 20 Masahiko Shimojo Stability of traveling waves in non-cooperative systems with nonlocal
(Tokyo Metro. Univ.) dispersal of equal diffusivities 12
Jong-Shenq Guo (Tamkang Univ.)
- 21 Masahiko Shimojo Spreading dynamics for a predator-prey system with two predators and
(Tokyo Metro. Univ.) one prey in a shifting habitat 12
Jong-Shenq Guo (Tamkang Univ.)
Chin-Chin Wu (Chung Hsing Univ.)
- 22 Kenta Kumagai (Tokyo Tech) Bifurcation structure of supercritical semilinear elliptic equations in two
dimensions 12
- 23 Yasuhito Miyamoto (Univ. of Tokyo) A bifurcation diagram of solutions to semilinear elliptic equations with
Yūki Naito (Hiroshima Univ.) general supercritical growth 12

17:00–18:00 Talk Invited by Functional Equations Section

- Fumihiko Nakano (Tohoku Univ.) Statistics for random Schroedinger operators and random walk

September 4th (Wed) Conference Room II

9:00–12:00

- 24 Minami Watanabe (Tsuda Coll.) Long time perturbation theory for nonlinear Schrodinger equation with
exponential nonlinearity 10
- 25 Sho Katayama (Univ. of Tokyo) Existence and multiplicity of solutions to non-homogeneous Dirichlet
problems for the Lane–Emden equation 12
- 26 Satoshi Tanaka (Tohoku Univ.)^b Existence of positive solutions to an eigenvalue problem with a variable
exponent 12
- 27 Mieko Tanaka (Tokyo Univ. of Sci.) Remarks on non-local eigenvalue problems for the p -Laplacian 12
- 28 Ryuji Kajikiya The best constant for the Sobolev–Poincaré inequality, I. Asymptotic
(Osaka Electro-Comm. Univ.) behavior 12
Mieko Tanaka (Tokyo Univ. of Sci.)
Satoshi Tanaka (Tohoku Univ.)
- 29 Ryuji Kajikiya The best constant for the Sobolev–Poincaré inequality, II. Monotonicity
(Osaka Electro-Comm. Univ.) 12
Mieko Tanaka (Tokyo Univ. of Sci.)
Satoshi Tanaka (Tohoku Univ.)
- 30 Youhei Tsutsui (Kyoto Univ.) Two-weight inequality for the heat flow and solvability of Hardy–Hénon
type equation 12
- 31 Yuki Osada (Saitama Univ.) A construction of peak solutions by a local mountain pass approach for
Yohei Sato (Saitama Univ.) a nonlinear Schrödinger system with three wave interaction 12
- 32 Tomoharu Kinoshita (Waseda Univ.) Multiplicity of solutions for a nonlinear Schrödinger system with three
Yuki Osada (Saitama Univ.) wave interaction 10

- 33 Shimpei Makida (Hokkaido Univ.) Stability of metric viscosity solutions under Hausdorff convergence ... 12
Atsushi Nakayasu (Univ. of Tokyo)
- 34 Erbol Zhanpeisov Liouville-type theorems for fully nonlinear elliptic and parabolic equations with boundary degeneracy 12
(Okinawa Inst. of Sci. and Tech. Grad. Univ.)
Qing Liu
(Okinawa Inst. of Sci. and Tech. Grad. Univ.)
- 35 Yasuhiro Fujita (Univ. of Toyama) A difference between Weierstrass function and Takagi function from the viewpoint of Hamilton–Jacobi flows 12
Norikazu Yamaguchi (Univ. of Toyama)
- 36 Tokuhiro Eto (Univ. of Tokyo) A convergence result for a minimizing movement scheme for mean curvature flow with prescribed contact angle in a curved domain 12
Yoshikazu Giga (Univ. of Tokyo)

13:00–14:00 Talk Invited by Functional Equations Section

- Mieko Tanaka (Tokyo Univ. of Sci.) Eigenvalue problems for (p, q) -Laplace equations with two parameters

September 5th (Thu) Conference Room II

9:00–12:00

- 37 Junichi Harada (Akita Univ.) Stability of the nondegenerate ODE type blowup for the Fujita type heat equation 10
- 38 Ikki Fukuda (Shinshu Univ.) Higher-order asymptotic profiles of solutions to the convection-diffusion equation with variable diffusion 12
Shinya Sato (Shinshu Univ.)
- 39 Ryunosuke Kusaba (Waseda Univ.) Asymptotic expansions for the convection-diffusion equation in the Fujita-subcritical case 12
- 40 Yuya Tanaka (Kwansei Gakuin Univ.) Asymptotic behavior of solutions for diffusive epidemic models with logistic source 12
Masahiko Shimojo
(Tokyo Metro. Univ.)
- 41 Takashi Suzuki (Osaka Univ.) Mathematical analysis for Brownian particle gas models, II 5
- 42 Kouta Araki (Nihon Univ.) Long-time behavior of free energy in nonlinear Fokker–Planck models with inhomogeneous diffusion 12
Masashi Mizuno (Nihon Univ.)
- 43 Masashi Mizuno (Nihon Univ.) The entropy dissipation method to non-linear Fokker–Planck equations with inhomogeneous diffusion 12
Yekaterina Epshteyn (Univ. of Utah)
Chun Liu (Illinois Inst. of Tech.)
- 44 Masaki Sakuma (Univ. of Tokyo) Existence of infinite sequences of solutions to some critical fractional Choquard-type equations with generalized convolution kernels 12
- 45 Masamitsu Suzuki (Meiji Univ.) Local existence and nonexistence for fractional in time reaction-diffusion equations and systems with rapidly growing nonlinear terms 12
- 46 Mizuki Kojima (Tokyo Tech) On Fujita critical time-fractional semilinear heat equations in uniformly local weak Zygmund spaces 12
- 47 Tatsu-Hiko Miura (Hiroasaki Univ.) Thin-film limit of the Ginzburg–Landau heat flow in a curved thin domain 12
- 48 Fuya Hiroi (Tohoku Univ.) Curve diffusion flow with the boundary on two skew lines 12
Shinya Okabe (Tohoku Univ.)
- 49 Tatsuya Miura (Kyoto Univ.) Stability of pinned planar p -elasticae 12
Kensuke Yoshizawa (Nagasaki Univ.)

12:15–12:45 Presentation Ceremony for the 2024 MSJ Analysis Prize**14:30–16:45**

- 50 Naoki Hamamoto (Osaka Metro. Univ.) Sharp L^2 remainder term in Hardy inequality for curl-free vector fields on the ball 12
- 51 Aya Ishizeki (Saitama Univ.)^b Möbius energies for multi-component-links, and their Möbius-invariant decomposition 10
Takeyuki Nagasawa (Saitama Univ.)
- 52 Akitoshi Hoshiya (Univ. of Tokyo) Orthonormal Strichartz estimate for Schrödinger operator 10
- 53 Masaki Kawamoto (Okayama Univ.) Modified scattering for nonlinear Schrödinger equations with long-range potentials 12
Haruya Mizutani (Osaka Univ.)
- 54 Satoshi Masaki (Hokkaido Univ.) Partial classification of the asymptotic behavior of solutions to NLS systems with coercive conserved quantity 12
- 55 Shunya Hashimoto (Saitama Univ.) Global solutions of stochastic nonlinear Schrödinger system 12
Masaru Hamano (Waseda Univ.)
Shuji Machihara (Saitama Univ.)
- 56 Kaito Kokubu (Tokyo Univ. of Sci.) Stability of travelling waves to Benjamin–Ono type equations with double power nonlinearities 12
- 57 Stephen Gustafson Multi-solitons for the nonlinear Schrödinger equation with repulsive Dirac delta potential 12
(Univ. of British Columbia)
Takahisa Inui (Osaka Univ.)
Ikkei Shimizu (Osaka Univ.)
- 58 Sonae Hadama (Kyoto Univ.)^b Asymptotic stability of stationary solutions of the Hartree equations for infinite quantum systems 12
Antoine Borie (Univ. of Rennes)
Julien Sabin (Univ. of Rennes)

17:00–18:00 Talk Invited by Functional Equations Section

- Takahisa Inui (Osaka Univ.) Global dynamics of threshold solutions for the nonlinear Schrödinger equation with repulsive Dirac delta potential

September 6th (Fri) Conference Room II

9:15–12:00

- 59 Yuki Haruyama (Tohoku Univ.)^b Blow-up of classical solutions of quasilinear wave equations in one space dimension 10
Hiroyuki Takamura (Tohoku Univ.)
- 60 Motohiro Sobajima Asymptotic behavior for wave equations with space-dependent damping in a weighted energy class 12
(Tokyo Univ. of Sci.)
- 61 Yoshinori Nishii (Tokyo Univ. of Sci.) On the decay estimate for small solutions to nonlinear Klein–Gordon equations with dissipative structure 12
- 62 Masahiro Takayama (Keio Univ.) Well-posedness of the initial boundary value problem for degenerate hyperbolic systems with a localized term 12
Tatsuo Iguchi (Keio Univ.)
- 63 Masahiro Takayama (Keio Univ.) Well-posedness of the initial boundary value problem for the linearized system for the motion of an inextensible hanging string 12
Tatsuo Iguchi (Keio Univ.)
- 64 Hiroyuki Tsurumi (Tokushima Univ.) Solutions to the stationary Hall-MHD equations in Besov spaces 12
Jin Tan (CY Cergy Paris Univ.)
Xin Zhang (Tongji Univ.)

- 65 Shintaro Kondo (Gifu Univ.) Global strong solution for the 2D MHD equations with shearing-periodic boundary condition 12
Tatsuki Nakamura
(AISIN CORPORATION)
- 66 Masahiro Suzuki (Nagoya Inst. of Tech.) Gas discharge in an annular region I: stability analysis 12
Walter A. Strauss (Brown Univ.)
- 67 Masahiro Suzuki (Nagoya Inst. of Tech.) Gas discharge in an annular region II: bifurcation 12
Walter A. Strauss (Brown Univ.)
- 68 Kai Koike (Tokyo Tech) Local exact Lagrangian controllability of the 1D compressible Navier–Stokes equations 12
Franck Sueur (Univ. Bordeaux)
Gastón Vergara-Hermosilla
(Univ. Paris-Saclay)
- 69 Naoto Deguchi (Tokyo Tech) Low Mach number limit of the compressible Navier–Stokes equation with stationary force 12
- 14:15–16:45**
- 70 Taiki Takeuchi (Kyoto Univ.) Maximal regularity approach to the Keller–Segel–Navier–Stokes system with nonlinear boundary conditions 12
Keiichi Watanabe (Suwa Univ. of Sci.)
- 71 Yoshiki Iida (Waseda Univ.) Global well-posedness of the primitive equations on non-flat layers in the framework of maximal L^q -regularity 12
- 72 Ryosuke Nakasato (Shinshu Univ.) Analyticity and asymptotic behavior of solutions to the Navier–Stokes equations in critical Fourier–Herz spaces 12
- 73 Hideo Kozono (Waseda Univ.) Asymptotic behavior of solutions to elliptic equations in 2D exterior domains 10
Yutaka Terasawa (Nagoya Univ.)
Yuta Wakasugi (Hiroshima Univ.)
- 74 Kenta Oishi Global solvability of the two-phase problem of inhomogeneous incompressible viscous fluids 12
(Kagawa Nat. Coll. of Tech.)
Hirokazu Saito
(Univ. of Electro-Comm.)
- 75 Kazuyuki Tsuda The time periodic problem for the Navier–Stokes equations on half spaces with moving boundary: Linear theory 12
(Kyushu Sangyo Univ.)
Reinhard Farwig (TU Darmstadt)
- 76 Kazuyuki Tsuda The time periodic problem for the Navier–Stokes equations on half spaces with moving boundary: Nonlinear theory 12
(Kyushu Sangyo Univ.)
Reinhard Farwig (TU Darmstadt)
- 77 Giovanni Paolo Galdi Nonhomogeneous boundary value problem for the steady Navier–Stokes equations with the slip boundary conditions 12
(Univ. of Pittsburgh)
Tatsuki Yamamoto (Waseda Univ.)
- 78 Keiichi Watanabe (Suwa Univ. of Sci.) The Helmholtz decomposition of vector fields for two-dimensional exterior Lipschitz domains 12
- 79 Tomoki Takahashi (Kanagawa Univ.) The Navier–Stokes flow in the exterior of a moving obstacle with a Lipschitz boundary 12
Keiichi Watanabe (Suwa Univ. of Sci.)

17:00–18:00 Talk Invited by Functional Equations Section

Jan Brezina (Kyushu Univ.) Long-time behavior of the dissipative compressible MHD

Real Analysis

September 5th (Thu) Conference Room VI

9:00–12:00

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| 1 | Tomoya Kato (Gifu Univ.)
Akihiko Miyachi (Tokyo Woman's Christian Univ.)
<u>Naoto Shida</u> (Nagoya Univ.)
Naohito Tomita (Osaka Univ.) | Bilinear oscillatory Fourier multipliers 15 |
| 2 | Yanhan Chen (Kyoto Univ.) | Weighted weak type bounds for fractionally sparsely dominated operators 15 |
| 3 | <u>Akira Lee</u> (Nara Women's Univ.)
Shinya Moritoh (Nara Women's Univ.) | Pandey–Upadhyay's wavelet transform and microlocal singularities of functions 15 |
| 4 | Tomoya Kato (Gifu Univ.)
<u>Akihiko Miyachi</u> (Tokyo Woman's Christian Univ.)
Naohito Tomita (Osaka Univ.) | Estimates for some bilinear wave operators 15 |
| 5 | <u>Ryota Kawasumi</u> (Kobe Gakuin Univ.)
Tsuyoshi Yoneda (Hitotsubashi Univ.) | Difference between the deep neural network and the Fourier series from pointwise convergence for the indicator function 15 |
| 6 | <u>Satoshi Yamaguchi</u> (Ibaraki Univ.)
Eiichi Nakai (Ibaraki Univ.) | Generalized fractional integral operators on subspaces of generalized Morrey spaces with variable growth condition 15 |
| 7 | Toru Nogayama (Tokyo Univ. of Sci.) | Weighted maximal inequalities for local Bourgain–Morrey spaces 15 |
| 8 | <u>Gen Nakamura</u> (Matsue Coll. of Tech.*/Akashi Coll. of Tech.)
Kazuo Hashimoto (Hiroshima Jogakuin Univ.*) | On the characterizat on of one-dimensional, n -order Sobolev spaces in terms of higher-order finite differences 15 |
| 9 | Youhei Tsutsui (Kyoto Univ.) | A proof of Alvino's embedding $BV \hookrightarrow L^{n/(n-1),1}$ via medians 15 |
| 10 | <u>Naoya Hatano</u> (Chuo Univ.)
Masahiro Ikeda (RIKEN/Keio Univ.) | Smoothing estimate for the heat semigroup with a homogeneous weight on Morrey spaces 15 |

14:15–16:45

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| 11 | <u>Naoya Hatano</u> (Chuo Univ.)
Masahiro Ikeda (RIKEN/Keio Univ.)
Ryota Kawasumi (Kobe Gakuin Univ.) | Boundedness of composition operators from Lorentz spaces to Orlicz spaces 15 |
| 12 | Yoichi Miyazaki (Nihon Univ.) | Logarithmic inequalities in Triebel–Lizorkin spaces 15 |

- 13 Hiro-o Kita (Kagoshima Univ.*) On Δ_0 -condition for generalized weak Orlicz space constructed by φ -function 15
 Takashi Miyamoto (Osaka Kyoiku Univ.)
 Naoko Ogata (Kobe Univ.)
- 14 Sachiko Atsushiba Convergence theorems for monotone nonexpansive mappings and mean-demiclosed mappings 15
 (Tokyo Woman's Christian Univ.)
- 15 Aoi Honda (Kyushu Inst. of Tech.) Uniform Structure of the Choquet Function Space $\mathcal{L}_1(\text{Ch})$ 15
 Ryoji Fukuda (Oita Univ.)
Yoshiaki Okazaki (Fuzzy Logic Systems Inst.)
- 16 Jun Kawabe (Shinshu Univ.) The abstract forms of the continuous Choquet integral representation theorems 15
- 17 Toshiharu Kawasaki On the extended indefinite integral 15
 (Tamagawa Univ./Chiba Univ.)
- 18 Yoshifumi Ito (Tokushima Univ.*) Study on space-time-matter 15

17:00–18:00 Talk Invited by Real Analysis Section

- Hiroki Saito (Nihon Univ.) Fractional integrals and related phenomena in analysis

September 6th (Fri) Conference Room VI

10:00–12:00

- 19 Hana Kakiuchi (Japan Women's Univ.) On existence of solutions to free boundary problems representing the baking process 15
 Toyohiko Aiki (Japan Women's Univ.)
- 20 Naotaka Ukai (Chiba Univ.) Uniqueness for gray-scale image-denoising process with anisotropic orientation adjustment 15
 Daiki Mizuno (Chiba Univ.)
 Ken Shirakawa (Chiba Univ.)
 Harbir Antil (George Mason Univ.)
- 21 Daiki Mizuno (Chiba Univ.) Pseudo-parabolic type regularity in parabolic KWC system with relaxation 15
 Ken Shirakawa (Chiba Univ.)
- 22 Yoshiho Akagawa Continuous dependence of a hardening plasticity model on the threshold function 15
 (Gifu Nat. Coll. of Tech.)
- 23 Masahiro Ikeda (RIKEN/Keio Univ.) Optimal control problem of ODE governed by hypergraph Laplacian 15
Shun Uchida (Oita Univ.)
 Takeshi Fukao (Ryukoku Univ.)
- 24 Kota Kumazaki (Kyoto Univ. of Edu.) Regularity of a solution to a one-dimensional free boundary problem 15
- 25 Risei Kano (Kochi Univ.) On the solvability of the Bernoulli–Euler beam model with piezoelectric effects 15
 Takahiro Yamanaka (Ogata High School)

14:15–15:05

- 26 Takeshi Fukao (Ryukoku Univ.) An error estimate of some vanishing surface diffusion 15
Pierluigi Colli (Univ. di Pavia)
Luca Scarpa (Politecnico di Milano)
- 27 Noriaki Yamazaki (Kanagawa Univ.) Solvability result of second order nonlinear quasi-variational evolution
Nobuyuki Kenmochi (Chiba Univ.*) inclusions 15
Ken Shirakawa (Chiba Univ.)
- 28 Takuma Yoshizumi (Osaka Univ.) Global solutions for semi-linear Klein–Gordon equations in FLRW
Makoto Nakamura (Osaka Univ.) spacetimes 10
- 29 Takuma Yoshizumi (Osaka Univ.) Blowing-up solutions for semi-linear Klein–Gordon equations in FLRW
Makoto Nakamura (Osaka Univ.) spacetimes 10

15:20–16:20 Talk Invited by Real Analysis Section

- Kosuke Kita (Tohoku Univ.) On nonlinear heat equations with nonlinear boundary conditions in a
bounded domain

Functional Analysis

September 3rd (Tue) Conference Room V

9:00–10:45

- 1 Nikita Evseev Zero-extension convergence and Sobolev spaces on changing domains
(Okinawa Inst. of Sci. and Tech. Grad. Univ.) 10
Malte Kampschulte (Charles Univ.)
Alexander Menovschikov
(Ben-Gurion Univ. of the Negev)
- 2 Yoritaka Iwata Fractional power representation of general unbounded operators and
(Osaka Univ. of Economics Law) the Heinz–Kato inequalities 15
- 3 Shosuke Omori On the rigged Hilbert space formulation for a quasi-Hermitian operator
(Gunma Nat. Coll. of Tech./Waseda Univ.) in composite system 15
- 4 Shuji Watanabe (Gunma Univ.) The Bogoliubov transformation and the gap equation in the BCS model
of superconductivity with external magnetic field II 15
- 5 Itaru Sasaki (Shinshu Univ.) Holomorphy of the ground states of the pair interaction models 15
Yasumichi Matsuzawa (Shinshu Univ.)
Shinnosuke Izumi (Shinshu Univ.)
Kouta Imura
(Nagano Pref. Fujimi High School)
- 6 Fumio Hiroshima (Kyushu Univ.) Exponential decay of the ground state of the renormalized Nelson
Hamiltonian by Agmon type metric 10
- 7 Fumio Hiroshima (Kyushu Univ.) On the ergodicity of renormalized translation-invariant Nelson-type
semigroups 10

11:00–12:00 Talk Invited by Functional Analysis Section

Naoto Kumanogo (Kogakuin Univ.) Phase space Feynman path integrals on the torus —An analysis on path space

September 4th (Wed) Conference Room V

10:00–11:45

- | | | | |
|----|---|--|----|
| 8 | Hiroto Inoue
(Nishinippon Inst. of Tech.) | F - t joint distributions associated to quadratic maps of homogeneous cones | 15 |
| 9 | Taito Tauchi (Aoyama Gakuin Univ.)
Kyo Nishiyama (Aoyama Gakuin Univ.) | Real double flag variety for indefinite unitary group $U(p, p)$ | 15 |
| 10 | Ryoya Arimoto (Kyoto Univ.) | Simplicity of crossed products of the actions of totally disconnected locally compact groups on their boundaries | 15 |
| 11 | Akifumi Nakada (Hiroshima Univ.)
Kento Ogawa (Hiroshima Univ.)
Takayuki Okuda (Hiroshima Univ.) | Harmonic analysis on compact association schemes | 15 |
| 12 | Koichi Arashi (Tokyo Gakugei Univ.) | Multiplicity-free representations of nilpotent Lie groups over a quasi-symmetric domain | 15 |
| 13 | Hyuga Ito (Nagoya Univ.) | On free divergence-free vector fields | 15 |

13:00–14:00 Talk Invited by Functional Analysis Section

Hiroyoshi Tamori (Shibaura Inst. of Tech.) Strichartz estimates for the (k, a) -generalized Laguerre operator

September 5th (Thu) Conference Room V

10:00–12:00

- | | | | |
|----|--|---|----|
| 14 | Daisuke Hirota
(Nat. Inst. of Tech., Tsuruoka Coll.) | Surjective isometries on the Banach algebra of continuously differentiable maps values in Lipschitz algebra | 15 |
| 15 | Hiroshi Isa (Maebashi Inst. of Tech.)
Eizaburo Kamei
Hiroaki Tohyama
(Maebashi Inst. of Tech.)
Masayuki Watanabe
(Maebashi Inst. of Tech.*) | Inequalities among the n -th residual relative operator entropies | 15 |
| 16 | Yuki Seo (Osaka Kyoiku Univ.) | Matrix trace inequalities related to the Tsallis relative entropies of real order | 15 |
| 17 | Masatoshi Ito (Maebashi Inst. of Tech.) | The weighted power difference mean and its generalization | 15 |
| 18 | Mitsuru Uchiyama
(Shimane Univ.*/Ritsumeikan Univ.) | Symmetric operator means | 15 |
| 19 | Masaru Nagisa (Chiba Univ.)
Yasuo Watatani (Kyushu Univ.*) | Non-linear traces of the Choquet type on factors of type II | 15 |
| 20 | Yasuo Watatani (Kyushu Univ.)
Masaru Nagisa
(Chiba Univ./Ritsumeikan Univ.) | Non-linear traces of the Sugeno type on factors of type II | 15 |

14:15–16:00

- 21 Hajime Moriya (Kanazawa Univ.) C^* -flow extension of discrete shift-translations on one-dimensional lattice systems 10
- 22 Ryosuke Sato (Chuo Univ.) CAR algebras and stochastic dynamics on random point processes ... 15
- 23 Kengo Matsumoto (Joetsu Univ. of Edu.) The Ext-groups and the homotopy groups of the automorphisms groups of Cuntz–Krieger algebras 15
Taro Sogabe (Kyoto Univ.)
- 24 Satoshi Goto (Sophia Univ.) On the connection system arising from the Haagerup fusion categories 15
Shôryû Suzuki (Sophia Univ.)
- 25 Yosuke Kubota (Kyoto Univ./RIKEN) Examples of spectral sequence computations in C^* -algebra K-theory 15
- 26 Michiya Mori (Univ. of Tokyo/RIKEN) On the shape of correlation matrices for unitaries 15

16:15–17:15 Talk Invited by Functional Analysis Section

- Shigeru Furuichi (Nihon Univ.) Generalized entropies and trace inequalities

Statistics and Probability

September 3rd (Tue) Conference Room VII

9:30–11:50

- 1 Ryo Inayoshi (Meijo Univ.) A characterization of the operator entropy in terms of an isometry property related to trace norms 15
- 2 Jiro Akahori (Ritsumeikan Univ.) A quantization of interacting particle systems 15
Norio Konno (Ritsumeikan Univ./Yokohama Nat. Univ.*)
Rikuki Okamoto (Ritsumeikan Univ.)
Iwao Sato (Oyama Nat. Coll. of Tech.)
- 3 Hoang-Long Ngo (Hanoi Nat. Univ. of Edu.) Strong solutions and numerical schemes for non-colliding particle systems 15
Minh Thang Do (Hanoi Nat. Univ. of Edu.)
Dai Taguchi (Kansai Univ.)
- 4 Kôhei Sasaya (Univ. of Tokyo) Construction of p -energy measures associated with strongly local p -energies 15
- 5 Ryosuke Shimizu (Waseda Univ.) Construction of Korevaar–Schoen p -energy forms and associated p -energy measures 15
Naotaka Kajino (Kyoto Univ.)
- 6 Khanh Duy Trinh (Waseda Univ.) Classical beta ensembles at high temperature and the Markov–Krein relation 15
Fumihiko Nakano (Tohoku Univ.)
Hoang Dung Trinh (VNU Univ. of Science)

- 7 Yuki Chino (NYCU) A characterization of symmetric environment for RWRE 15
- 8 Zijian Xu (Fukuoka Univ.) The Littlewood–Paley–Stein inequality for tamed Dirichlet spaces 15
 Kazuhiro Kuwae (Fukuoka Univ.)
 Syota Esaki (Oita Univ.)
- 9 Toshihiro Uemura (Kansai Univ.) On semi-Dirichlet forms of jump-diffusion processes based on the Sobolev space $W_0^{1,2}(D)$ 10

14:15–15:15 Talk Invited by Statistics and Probability Section

- Takuya Murayama (Kyushu Univ.) Some problems on the traces and driving functions of the Loewner differential equation

15:30–16:30 Talk Invited by Statistics and Probability Section

- Hiroaki Hata (Hitotsubashi Univ.) An optimal consumption and investment problem with a general non-linear stochastic factor model and its policy improvement algorithm

September 4th (Wed) Conference Room VII

9:30–11:40

- 10 Nima Alibabaei (Kyoto Univ.) Weighted topological entropy and Hausdorff dimension 15
- 11 Kazuki Nakajima Extreme value theory for stationary random fields on \mathbb{Z}^d 15
 (Grad. Univ. for Adv. Stud.)
- 12 Ryoji Takano (Osaka Univ.) Large deviation principle for stochastic differential equations driven by stochastic integrals 15
- 13 Yushi Hamaguchi (Kyoto Univ.) A generalized coupling approach for the weak approximation of stochastic functional differential equations 15
 Dai Taguchi (Kansai Univ.)
- 14 Yumiharu Nakano (Tokyo Tech) On convergence of the diffusion generative models 15
- 15 Yoshinori Kamijima (Toyo Univ.) A local limit theorem for the long-range self-avoiding walk 15
- 16 Tomoki Yamagami (Univ. of Tokyo) Analyses of Antlion random walks 15
 Akihiro Narimatsu
 (Univ. of Fukuchiyama)
- 17 Yuma Tamura (Ritsumeikan Univ.) Periodicity and absolute zeta function of multistate quantum walk on cycle graph 15
 Jirô Akahori (Ritsumeikan Univ.)
 Norio Konno (Ritsumeikan Univ.)
 Iwao Sato (Oyama Nat. Coll. of Tech.)

11:40–12:10 Research Section Assembly

September 5th (Thu) Conference Room VII

9:30–11:40

- 18 Hayato Takahashi (Random Data Lab.) Exact Kolmogorov–Smirnov tests of random numbers with distributions of runs 15
- 19 Hisashi Johno (Univ. of Yamanashi) Extension of the one-sample Kolmogorov–Smirnov test 15
 Atsushi Komaba (Univ. of Yamanashi)
 Kazunori Nakamoto
 (Univ. of Yamanashi)

20	<u>Yoshihiko Maesono</u> (Chuo Univ.) Shota Akiba (Chuo Univ.)	Asymptotic mean squared error of nonparametric quantile regression	15
21	<u>Koji Tsukuda</u> (Kyushu Univ.) Shun Matsuura (Keio Univ.)	Estimator for allometric regression model	15
22	<u>Kohei Kawamoto</u> (Kyushu Univ.) Yuichi Goto (Kyushu Univ.) Koji Tsukuda (Kyushu Univ.)	Spectral clustering algorithm for the allometric extension model	15
23	Yuta Koike (Univ. of Tokyo)	Asymptotic expansion of coverage probability for the high-dimensional bootstrap	15
24	Yozo Tonaki (Osaka Univ.) Yusuke Kaino (Kobe Univ.) Masayuki Uchida (Osaka Univ.)	Parameter estimation for a linear parabolic SPDE in two space dimensions	15
25	<u>Hiroki Masuda</u> (Univ. of Tokyo) Shoichi Eguchi (Osaka Inst. of Tech.)	Robustified asymptotics for estimating volatility	15

14:15–15:15 Talk Invited by Statistics and Probability Section

Yuma Uehara (Kansai Univ.) Predictive model selection for jump diffusion models

15:30–16:30 Talk Invited by Statistics and Probability Section

Shogo Nakakita (Univ. of Tokyo) Recent development in theories of non-sparse high-dimensional statistics

September 6th (Fri) Conference Room VII

10:00–11:45

26	<u>Kento Egashira</u> (Tokyo Univ. of Sci.) Kazuyoshi Yata (Univ. of Tsukuba) Makoto Aoshima (Univ. of Tsukuba)	Modification to k-means for high-dimensional data	15
27	Yoshihiko Konno (Osaka Metro. Univ.)	An adaptive singular value shrinkage for estimation problem of low-rank matrix mean with unknown covariance matrix	10
28	<u>Hirofumi Wakaki</u> (Hiroshima Univ.) Hirokazu Yanagihara (Hiroshima Univ.)	Complete bias modification of the risk of the model based on KL divergence	15
29	<u>Rinka Sagawa</u> (Waseda Univ.) Yan Liu (Waseda Univ.)	An information criterion for detecting periodicities in functional time series	15
30	Xiaoqiang Zeng <u>Yoshihide Kakizawa</u> (Hokkaido Univ.)	Whittle likelihood estimation in INAR(p) process	15
31	<u>Yuichi Goto</u> (Kyushu Univ.) Kou Fujimori (Shinshu Univ.)	A test for counting sequences of integer-valued autoregressive models	15
32	<u>Yujie Xue</u> (Inst. of Stat. Math.) Taniguchi Masanobu (Waseda Univ.)	Introduction of general distributions on sphere and torus in view of time series spectra	10

14:15–15:45

- 33 Hidefumi Kawasaki (Kyushu Univ.) A grading theorem of sets based on Borsuk's antipodal theorem 15
- 34 Teruo Tanaka (Hiroshima City Univ.) Optimal stopping problems for discrete time multiparameter Markov processes 10
- 35 Shoko Chisaki (Osaka Inst. of Tech.) A construction of GDD-type spanning bipartite block designs 10
Ryoh Fuji-Hara (Univ. of Tsukuba*)
Nobuko Miyamoto (Tokyo Univ. of Sci.)
- 36 Hisaya Okahara (Tokyo Univ. of Sci.) Generalized ordinal quasi-symmetry model in multi-way tables and necessary and sufficient conditions for symmetry 15
Kouji Tahata (Tokyo Univ. of Sci.)
- 37 Tetsuya Sato (Tokyo Univ. of Sci.) Sphericity test on variance-covariance matrices with monotone missing data for a multi-sample problem 15
Ayaka Yagi (Tokyo Univ. of Sci.)
Takashi Seo (Tokyo Univ. of Sci.)
- 38 Riku Hosonuma (Tokyo Univ. of Sci.) Bartlett-type correction of the test statistics for sub-mean vector with two-step monotone missing data 15
Tamae Kawasaki
 (Aoyama Gakuin Univ.)
Takashi Seo (Tokyo Univ. of Sci.)

Applied Mathematics

September 3rd (Tue) Conference Room IV

9:00–11:40

- 1 Yoshinori Kametaka (Osaka Univ.*) The best constant of discrete Sobolev inequality on 1812 C60 fullerene isomers 15
Kohtaro Watanabe
 (Nat. Defense Acad. of Japan)
Atsushi Nagai (Tsuda Coll.)
Kazuo Takemura (Nihon Univ.)
Hiroyuki Yamagishi
 (Tokyo Metropolitan Coll. of Indus. Tech.)
Hiroto Sekido (Osaka Seikei Univ.)
- 2 Hideto Asashiba (Shizuoka Univ.) Interval replacements of persistence modules 15
Etienne Gauthier (École Polytechnique)
Enhao Liu (Kyoto Univ.)
- 3 Akifumi Nakada (Hiroshima Univ.) Compact association schemes 15
Kento Ogawa (Hiroshima Univ.)
Takayuki Okuda (Hiroshima Univ.)
- 4 Kento Ogawa (Hiroshima Univ.) An algebraization of association schemes 10
- 5 Hiroshi Nozaki (Aichi Univ. of Edu.) Reducing the number of points of cubature formulas using polynomial space 15
Masanori Sawa (Kobe Univ.)
- 6 Hideki Matsumura On Galois conjugate weighted designs for Bessel polynomials 15
 (Tokyo Metro. Univ./Keio Univ.)
Masanori Sawa (Kobe Univ.)

- 7 Teruyuki Mishima (Accenture Japan Ltd)
Masanori Sawa (Kobe Univ.)
Yukihiro Uchida (Tokyo Metro. Univ.)
Xiao-Nan Lu (Gifu Univ.) On explicit construction of rational interval designs 15
- 8 Hiroaki Taniguchi (Yamato Univ./Kagawa Nat. Coll. of Tech.*) On Incidence graphs of APN functions and Dillon's property 15
- 9 Yoshimi Egawa (Tokyo Univ. of Sci.*)
Haruhide Matsuda (Shibaura Inst. of Tech.) Degree sum conditions for covering cycles in graphs 15
- 10 Shinya Fujita (Yokohama City Univ.) On the existence of rainbow cycles in edge-colored graphs 10

14:15–15:15 Talk Invited by Applied Mathematics Section

- Tsuyoshi Miezaki (Waseda Univ.) Universal graph series, chromatic functions, and their index theory

15:30–16:25

- 11 Kuniharu Yokomura (Tokai Univ.) On degree conditions of balanced k -partite Hamiltonian-connected graphs 15
- 12 Kazuhide Hirohata (Ibaraki Nat. Coll. of Tech.)
Megan Cream (Lehigh Univ.)
Ronald J. Gould (Emory Univ.) Chorded pancyclicity with distance two degree condition 15
- 13 Masaki Kashima (Keio Univ.)
Riste Škrekovski (Univ. of Ljubljana)
Rongxing Xu (Zhejiang Normal Univ.) Analogies of degree coloring in proper conflict-free colorings 15
- 14 Inasa Nakamura (Saga Univ.) Transformations of partial matchings and dotted graphs 10

16:40–17:40 Award Lecture for the 2023 Applied Mathematics Prize

- Mikio Kano (Ibaraki Univ.*) Two degree factors of graphs and related topics

September 4th (Wed) Conference Room IV

9:00–11:40

- 15 Kenta Ozeki (Yokohama Nat. Univ.)
Mikio Kano (Ibaraki Univ.*)
Yoshimi Egawa (Tokyo Univ. of Sci.*) Path-cycle systems in regular graphs 10
- 16 Kenta Mori (Kwansei Gakuin Univ.)
Aki Mori (Setsunan Univ.)
Hidefumi Ohsugi (Kwansei Gakuin Univ.) The number of facets of symmetric edge polytopes arising from join graphs 15
- 17 Yosuke Sato (Waseda Univ.) Generalization of the vertex-weighted version of the chromatic symmetric function 15
- 18 Hikari Sakamoto (Kanagawa Univ.)
Kei Saito (Nihon Univ.) A method of discrimination of time series whether classical or quantum type via moment parameter estimation 15
- 19 Kei Saito (Nihon Univ.)
Daiju Funakawa (Hokkai-Gakuen Univ.) A generalized spectral mapping theorem for quantum walks on graphs 15

- 20 Yasuaki Fujitani (Osaka Univ.)
Chusei Kiumi (Osaka Univ.) Transport distance between Grover walks on graphs and coarse Ricci curvature 15
- 21 Kiyoto Yoshino
(Hiroshima Inst. of Tech.)
Sho Kubota (Aichi Univ. of Edu.) Symmetry of graphs and perfect state transfer in Grover walks 15
- 22 Takako Endo(Watanabe)
(Tohoku Univ.)
Takashi Komatsu (Univ. of Yamanashi)
Norio Konno
(Ritsumeikan Univ./Yokohama Nat. Univ.*)
Hideo Mitsuhashi (Hosei Univ.)
Iwao Sato (Oyama Nat. Coll. of Tech.) The second matrix-weighted zeta function of a graph 10
- 23 Iwao Sato (Oyama Nat. Coll. of Tech.)
Takako Endo (Tohoku Univ.)
Takashi Komatsu (Univ. of Yamanashi)
Norio Konno
(Ritsumeikan Univ./Yokohama Nat. Univ.*)
Yohei Matsumoto (Shinshu Univ.) The second matrix-weighted alternating zeta function of a digraph ... 15
- 24 Iwao Sato (Oyama Nat. Coll. of Tech.)
Akahori Jiro (Ritsumeikan Univ.)
Norio Konno
(Ritsumeikan Univ./Yokohama Nat. Univ.*)
Suzuki Ryoichi (Ritsumeikan Univ.) A zeta function of a pseudo quantization of a Markov chain on a graph 15
- 13:00–14:00**
- 25 Tomoki Kato (Nihon Univ.)
Yusuke Ide (Nihon Univ.)
Akihiro Narimatsu
(Univ. of Fukuchiyama)
Norio Konno
(Ritsumeikan Univ./Yokohama Nat. Univ.*) Construction of multivariate orthogonal polynomials related to birth and death chains 15
- 26 Akihiro Narimatsu
(Univ. of Fukuchiyama)
Yusuke Ide (Nihon Univ.)
Norio Konno
(Ritsumeikan Univ./Yokohama Nat. Univ.*) Continuous time quantum walk related to the multi- dimensional Ehrenfest model 15
- 27 Hiroto Sekido (Yokohama Nat. Univ.)
Etsuo Segawa (Yokohama Nat. Univ.) Periodicity and rhythmicity of quantum graph walks 15
- 28 Taisuke Hosaka (Yokohama Nat. Univ.)
Etsuo Segawa (Yokohama Nat. Univ.) Pulsation of the quantum walk on the Johnson graph 15

September 5th (Thu) Conference Room IV

9:45–12:00

- 29 Karel Svadlenka (Tokyo Metro. Univ.) On an approximation method for anisotropic interfacial motions on obstacle 15

- 30 Yu Ichida (Kwansei Gakuin Univ.) Global dynamics of a simple model for wild and sterile mosquitoes
Yukihiko Nakata (Aoyama Gakuin Univ.) 15
- 31 Bendong Lou (Shanghai Normal Univ.) Asymptotic behavior for solutions to reaction-diffusion equations on a
Yoshihisa Morita (Ryukoku Univ.*) root-like metric graph 15
- 32 Makoto Okumura (Konan Univ.) Structure-preserving numerical methods based on square differences for
conservative PDEs 15
- 33 Junyong Eom (Hokkaido Univ.) Approximation peak time to time-domain fluorescence diffuse optical
Shuli Chen (Hokkaido Univ.) tomography for finite fluorescence lifetime 15
Gen Nakamura (Hokkaido Univ.)
Goro Nishimura (Hokkaido Univ.)
- 34 Takaaki Nishida (Kyoto Univ.*) A thermal convection in the horizontal layer with non-uniform heat
Yoshiyuki Kagei (Tokyo Tech) supply 15
Hiroshi Fujiwara (Kyoto Univ.)
- 35 Kazuo Takemura (Nihon Univ.) Positivity of the Green's function corresponding to clamped boundary
Atsushi Nagai (Tsuda Coll.) value problem for $(-1)^M(d/dx)^{2M}$ 15
Hiroto Sekido (Osaka Seikei Univ.)
- 36 Takuya Tsuchiya (Meiji Gakuin Univ.) On convergence and behavior of solutions for semi-linear Klein–Gordon
Makoto Nakamura (Osaka Univ.) equation 15
- 14:15–16:00**
- 37 Tomoki Ohsawa (Univ. of Texas at Dallas) Semiclassical perturbations of single-degree-of-freedom Hamiltonian systems: Separatrix splitting and nonintegrability 15
Kazuyuki Yagasaki (Kyoto Univ.)
- 38 Takashi Miura (Kyushu Univ.) Segmented patterns appearing in seminiferous tubules and various properties of defects 15
Toshiyuki Ogawa (Meiji Univ.)
Ayuki Sekisaka (Meiji Univ.)
Kei Sugihara (Kyushu Univ.)
- 39 Koichi Anada (Waseda Univ. Senior High School) Remark on the asymptotic behavior of curves in a curve shortening
Tetsuya Ishiwata (Shibaura Inst. of Tech.) problem for convex immersed curves with self-crossing points 15
Takeo Ushijima (Tokyo Univ. of Sci.)
- 40 Yuuki Ueda (Hokkaido Univ.) Mathematical modeling of glucose-insulin metabolism dynamics and
Junyong Eom (Hokkaido Univ.) parameter estimation 15
Shinya Uchiiumi (Hokkaido Univ.)
Yueyuan Gao (Shimane Univ.)
Shinji Nakaoka (Hokkaido Univ.)
Hiroshi Suito (Tohoku Univ.)
Shinji Kume (Shiga Univ. of Medical Sci.)
Hideki Katagiri (Tohoku Univ.)
Masaharu Nagayama (Hokkaido Univ.)
- 41 Toshiko Ogiwara (Josai Univ.) Propagating direction of bistable traveling fronts in the Lotka–Volterra
Ken-Ichi Nakamura (Meiji Univ.) competition-diffusion system 15

- 42 Hidetomo Hoshino (Waseda Univ.) Analysis and improvement of numerical stability of the Einstein equations against homogeneous and isotropic spacetime background 15
Takuya Tsuchiya (Meiji Gakuin Univ.)
Gen Yoneda (Waseda Univ.)

16:15–17:15 Talk Invited by Applied Mathematics Section

- Harunori Monobe (Osaka Metro. Univ.)^b On compact traveling waves in the singular limit problem of some reaction diffusion systems

September 6th (Fri) Conference Room IV

10:00–12:00

- 43 Yu Ichida (Kwansei Gakuin Univ.) Geometric approach to the bifurcation at infinity: A case study 15
Takashi Sakamoto (Meiji Univ.)
- 44 Masumi Kondo (Okayama Univ. of Sci.) Ulam stability for von Bertalanffy growth model with Allee effect 15
Masakazu Onitsuka
(Ookayama Univ. of Sci.)
- 45 Kota Takeda (Kyoto Univ.) Uniform error bounds of the ensemble transform Kalman filter for chaotic dynamics with multiplicative covariance inflation 15
Takashi Sakajo (Kyoto Univ.)
- 46 Hiroshi Ishii (Hokkaido Univ.) On the propagation of solutions to Fisher-KPP type equation with time-fractional derivative 15
- 47 Yoshitaka Watanabe (Kyushu Univ.) A verified operator norm estimation for the inverse of an infinite-dimensional linear operator with singular term by Büniger–Rump’s theory 15
- 48 Fuminori Sakaguchi (Univ. of Fukui) A new integer-type algorithm with 2nd/3rd-order convergence for calculating eigenvalues of differential operators by using auto-cancellations of the singularities of their eigenfunctions 15
- 49 Keita Iida (Osaka Univ.) Semiology-based clustering method for single-cell data 15

14:15–16:00

- 50 Yumihiko S. Ikura (Meiji Univ.) A mathematical study on the pattern dynamics of the Greenberg–Hastings cellular automaton. 15
Hirokazu Ninomiya (Meiji Univ.)
- 51 Shu Kanazawa (Kyoto Univ.) Large deviation principle for persistence diagrams of random cubical filtrations 15
Yasuaki Hiraoka (Kyoto Univ.)
Jun Miyanaga (Tohoku Univ.)
Kenkichi Tsunoda (Kyushu Univ.)
- 52 Kazuaki Tanaka (Waseda Univ.) Computer-assisted uniqueness proof for sign-changing radially symmetric solutions of scalar field equations 15
Masahide Kashiwagi (Waseda Univ.)
Yuki Naito (Hiroshima Univ.)
Satoshi Tanaka (Tohoku Univ.)
Kohtaro Watanabe
(Nat. Defense Acad. of Japan)
- 53 Takao Namiki (Hokkaido Univ.) Permutation entropy and epileptgenetic zone 10
Satoru Tadokoro (Hokkaido Univ.)
Yuta Kishimoto (Hokkaido Univ.)
Shunsuke Kajikawa (Kyoto Univ.)
Masao Matsuhashi (Kyoto Univ.)
Akio Ikeda (Kyoto Univ.)
Ichiro Tsuda (Sapporo City Univ.)

- 54 Itsuki Watanabe (Oita Univ.) Markov chain approximation for Hamilton–Jacobi–Bellman equation
with reflecting boundary 15
Taiga Kumagai
(Nat. Inst. of Tech., Maizuru Coll.)
- 55 Tetsuya Ishiwata On the learning behavior of SARSA and Q-learning in reinforcement
(Shibaura Inst. of Tech.) learning and a hybrid algorithm 15
Kouya Kawanishi
(Japan Res. Inst., Ltd)

16:15–17:15 Talk Invited by Applied Mathematics Section

- Kengo Nakai (Okayama Univ.) Evaluation of a data-driven model using reservoir computing from dynamical system point of view

Topology

September 3rd (Tue) Conference Room IX

9:30–12:00

- 1 Akihiro Higashitani (Osaka Univ.) Classification of generalized Alexander quandles 15
Seiichi Kamada (Osaka Univ.)
Jin Kosaka
Hirotake Kurihara (Yamaguchi Univ.)
- 2 Erika Kuno (Osaka Univ.) The automorphism groups of the fine curve graphs for nonorientable
Mitsuaki Kimura (Osaka Dent. Univ.) surfaces 10
- 3 Susumu Hirose (Tokyo Univ. of Sci.) On generating mapping class groups by pseudo-Anosov elements 15
Naoyuki Monden (Okayama Univ.)
- 4 Yasushi Kasahara Low dimensional MCG-invariant representations of surface groups in
(Kochi Univ. of Tech.) the naive deformation spaces 10
- 5 Toyo Taniguchi (Univ. of Tokyo) Topology of loops via non-commutative differential geometry 15
- 6 Aoi Wakuda (Univ. of Tokyo) A generalization of the Center Theorem of the Thurston–Wolpert–
Goldman Lie algebra 15
- 7 Tatsuki Kuwagaki (Kyoto Univ.) On the construction of WKB spectral network 15

14:30–15:30 Talk Invited by Topology Section

- Mai Katada (Kyushu Univ.) The stable Albanese homology of the IA-automorphism groups of free groups

September 4th (Wed) Conference Room I

10:00–10:15 Presentation Ceremony for the 2024 MSJ Geometry Prize**10:20–11:20 Award Lecture for the 2024 MSJ Geometry Prize**

- Hokuto Konno (Univ. of Tokyo) Diffeomorphism group and gauge theory

12:50–13:50 Award Lecture for the 2024 MSJ Geometry Prize

Shinobu Hosono (Gakushuin Univ.) Families of Calabi-Yau manifolds and mirror symmetry

September 5th (Thu) Conference Room IX

9:30–12:00

- 8 Kohei Tanaka (Shinshu Univ.) Cone complexes and group actions 15
- 9 Ryo Kato (Kochi Univ. of Tech.) On the Greek letter elements of the homotopy groups of the $E(n)$ -
 Katsumi Shimomura (Kochi Univ.) localized sphere spectrum 10
Mao-no-suke Shimomura (Kochi Univ.)
- 10 Takahito Naito (Nippon Inst. of Tech.) Cartan calculus in string topology 15
- 11 Yuki Kato (Ube Nat. Coll. of Tech.) Application of Smith ideal theory to almost ring theory of pointed
 symmetric monoidal model categories 15
- 12 Katsuhisa Koshino (Kanagawa Univ.) The Borel complexity and the complete metrizability of spaces of metrics
 15
- 13 Yasushi Hirata (Kanagawa Univ.) Characterizations of irreducibility on GO-spaces and monotonically
 Yukinobu Yajima (Kanagawa Univ.*) normal spaces by cardinal functions 15
- 14 Kenshi Ishiguro (Fukuoka Univ.) Modular invariant rings and the Weyl groups of special unitary groups
 Naito Nishihara (Fukuoka Univ.) 10
- 15 Jun O'Hara (Chiba Univ.) Characterization of generic finite metric spaces by magnitude 15

14:20–15:20 Talk Invited by Topology SectionMasahiko Yoshinaga (Osaka Univ.)^b Topology of real hyperplane arrangements**15:40–18:00**

- 16 Mutsuo Oka Comment on Briançon–Speder polynomial 15
 (Tokyo Tech*/Tokyo Univ. of Sci.)
- 17 Sakumi Sugawara (Hokkaido Univ.) First homology groups of the Milnor fiber boundary for generic hyper-
 plane arrangements in \mathbb{C}^3 15
- 18 Masato Tanabe (Hokkaido Univ.) Immersions of surface singularity links and their topology 10
- 19 Noboru Ogawa (Tokai Univ.) Suspension configuration of Liouville domains and compressibility of
 Toru Yoshiyasu (Kyoto Univ. of Edu.) contact manifolds 15
- 20 Masaki Taho (Univ. of Tokyo) Tangent spaces of diffeological spaces and their variants 15
- 21 Hiroyuki Hayashi (Kobe Univ.) Geometry on curves passing through Whitney umbrella 15
- 22 Tadashi Fujioka (Osaka Univ.) On the stratification of spaces with curvature bounded below 15
- 23 Chong Zheng (Waseda Univ.) On the connectedness homomorphism between discrete Morse com-
 plexes 15

September 6th (Fri) Conference Room IX

9:30–12:00

- 24 Jun Murakami (Waseda Univ.) On the volume conjecture for double twist knots 15
- 25 Hiroshi Goda (Tokyo Univ. of Agri. and Tech.)
Takayuki Morifuji (Keio Univ.) A volume presentation of a hyperbolic fibered knot 10
- 26 Yasuharu Nakae (Akita Univ.)
Teruaki Kitano (Soka Univ.) Montesinos knots as an extension of symmetric unions and its Alexander polynomial 15
- 27 Takuji Nakamura (Univ. of Yamanashi)
Yasutaka Nakanishi (Kobe Univ.)
Shin Satoh (Kobe Univ.)
Kodai Wada (Kobe Univ.) Fox \mathbb{Z} -colorings and 12 equivalence relations on \mathbb{Z}^m 10
- 28 Yuka Kotorii (Hiroshima Univ./RIKEN)
Sonia Mahmoudi (Tohoku Univ./RIKEN)
Elisabetta Matsumoto (Georgia Tech.)
Ken'ichi Yoshida (Hiroshima Univ.) Coverings and isotopies of links in the thickened torus 15
- 29 Ken'ichi Yoshida (Hiroshima Univ.) Links in the spherical 3-manifold obtained from the quaternion group and their lifts 10
- 30 Koki Yanagida (Tokyo Tech) The Dijkgraaf–Witten invariant in topological K -theory 15
- 31 Chihaya Jibiki (Tokyo Tech)
Shuhei Maruyama (Kanazawa Univ.) Construction of isolated orders using properties of $\text{Isom}_+(\mathbb{H}^2)$ 15

14:20–16:50

- 32 Tsukasa Ishibashi (Tohoku Univ.)
Shunsuke Kano (Tohoku Univ.)
Wataru Yuasa (Kyoto Univ.) Skein and cluster algebras with coefficients for unpunctured surfaces 10
- 33 Takuya Sakasai (Univ. of Tokyo)
Yuuki Tadokoro (Kisarazu Nat. Coll. of Tech.)
Kokoro Tanaka (Tokyo Gakugei Univ.) Matrix representations for groups of Kim–Manturov 10
- 34 Hajime Kubota (Kyoto Univ.) On the knot concordance invariant Upsilon using grid homology 15
- 35 Yuichi Yamada (Univ. of Electro-Comm.) Exceptional Dehn surgeries along a certain family of two component links 10
- 36 Motoo Tange (Univ. of Tsukuba)
Koichi Tauchi (Univ. of Tsukuba) Lens space surgeries over homology spheres with $\lambda = -2, -3$ 15
- 37 Natsuya Takahashi (Osaka Univ.) Non-diffeomorphic minimal genus relative trisections of the same 4-manifold with boundary 15
- 38 Tsukasa Isoshima (Tokyo Tech)
Masaki Ogawa (Tohoku Univ.) Nielsen equivalence and multisections of 4-manifolds 15
- 39 Yahiko Nimura (Tokai Univ.) Charts of type $(2, 4, 2)$ with a lens of type 2 15

40	<u>Jumpei Yasuda</u> (Osaka Univ.)	Knitted surfaces and presentations of knotted surfaces in a four ball	
	<u>Inasa Nakamura</u> (Saga Univ.)	15

Infinite Analysis

September 3rd (Tue) Conference Room VIII

9:30–10:35

1	<u>Satoshi Tsuchimi</u> (Kobe Univ.)	A multivariate analogue of the Zwegers' μ -function	15
	<u>Genki Shibukawa</u> (Kobe Univ.)		
2	<u>Genki Shibukawa</u> (Kobe Univ.)	A generalization of “summatio quarumdam serierum singularium” and specialization of the generalized μ -function	15
3	<u>Yumi Arai</u> (Ochanomizu Univ.)	On q -middle convolution and q -hypergeometric equations, I	15
	<u>Kouichi Takemura</u> (Ochanomizu Univ.)		
4	<u>Yumi Arai</u> (Ochanomizu Univ.)	On q -middle convolution and q -hypergeometric equations, II	15
	<u>Kouichi Takemura</u> (Ochanomizu Univ.)		

10:45–11:45 Talk Invited by Infinite Analysis Special Session

Takahiko Nobukawa (Kobe Univ.) ${}_{10}W_9$, ${}_8W_7$ and variant of ${}_2\varphi_1$ as democratic q -hypergeometric equations

September 4th (Wed) Conference Room VIII

9:30–10:30

5	<u>Kohei Yamaguchi</u> (Nagoya Univ.)	Equivariant K-homology of affine Grassmannian	15
6	<u>Yosuke Kawamoto</u> (Okayama Univ.)	The intertwining property for Laguerre processes with a fixed parameter	
	<u>Alexander Bufetov</u> (Steklov Math. Inst. of RAS, etc.)	15
7	<u>Akito Tatekawa</u> (Meiji Univ.)	Calculating the energy functions of diamond lattices of general dimen- sions as a generalization of the Kitaev model	10
8	<u>Tetsu Masuda</u> (Aoyama Gakuin Univ.)	Stieltjes type relations for the Umemura polynomials of the fifth Painlevé V equation	15

10:45–11:45 Talk Invited by Infinite Analysis Special Session

Atsushi Nakayashiki (Tsuda Coll.) Quasi-periodic solutions of the KP-hierarchy and vertex operator

Information for Speakers

The Organizing Committee apologizes that it had to cut the duration of contributed talks because of technical reasons. Since the schedule is very tight, we ask the speakers to strictly keep time. A bell will be rung when 2/3 of the assigned time has passed. A second bell will be rung as soon as the time is up, and the speaker has to leave the stage.

Collaborative works are presented by the underlined authors. The talks with **b** marks denote presentations on blackboard. The speakers with **★** marks are professors emeriti. If you find anything wrong in the program, do not hesitate to inform the Chair of Organizing Committee by sending e-mail to the address program24sept@mathsoc.jp.

Each conference room is equipped with a blackboard and a projector with HDMI interface for PC presentation. You are asked to use your own PC and to bring suitable accessories (for example, USB type C-HDMI adapter) for your presentation. The time for connecting your PC to the projector is a part of the assigned duration of your talk. You are strongly recommended to check beforehand if your slides can be properly displayed in the conference room. We also advise you to bring the PDF file of your presentation on a USB flash drive, just in case the PC connection does not work.

Information for Participants

Smoking is prohibited on campus.

There is no parking area for participants. Please use public transportation.

Osaka University is an eduroam participating institution.

Dining options include University CO-OP Basement Cafeteria, CO-OP Basement shop, Cafeteria (La Foret), and Lawson (in the science building J).

There are convenience stores near Osaka University (one in the south and one in the west direction from the main gate, and one in the north direction from the east entrance).

We do not provide tea or other drinks in the break rooms, but you can use them as lunch areas if you bring your own lunch boxes.

Official Party

Date: September 4th (Wed) 18:00–20:00

Venue: 1F, Cafeteria Kasane

Participants are asked to pay 5,000 JPY at the party.

Directions

2024 MSJ AUTUMN MEETING

Dates : September 3rd (Tue)–6th (Fri), 2024

Venue : Toyonaka Campus, Osaka University
1–1 Toyonaka, Osaka, 560-0043, Japan

Contact to : Department of Mathematics, Graduate School of Science
Osaka University
1–1 Toyonaka, Osaka, 560-0043, Japan
osaka24sept@mathsoc.jp

Web Site : <https://www.mathsoc.jp/en/meeting/osaka24sept/>

Conference Rooms

	Place	Research Sections
Conference Room I	Nambu Yoichiro Hall, 2F, School of Sci. Bldg. J	Geometry, Featured Invited Talk
Conference Room II	Sky Lecture Room B300, 3F, School of Eng. Sci. Bldg. B	Functional Equations, Featured Invited Talks
Conference Room III	Big Lecture Room, 1F, CELAS Bldg. B	Algebra, Featured Invited Talks
Conference Room IV	B118, 1F, CELAS Bldg. B	Applied Mathematics
Conference Room V	A201, 2F, CELAS Bldg. A	Functional Analysis
Conference Room VI	A301, 3F, CELAS Bldg. A	Complex Analysis, Real Analysis
Conference Room VII	B107, 1F, CELAS Bldg. B	Statistics and Probability
Conference Room VIII	B108, 1F, CELAS Bldg. B	Infinite Analysis, Foundation of Mathematics and History of Mathematics
Conference Room IX	B218, 2F, CELAS Bldg. B	Topology
Plenary Talks	2F & 3F, Osaka University Hall	
Open Lectures for Citizens	Nambu Yoichiro Hall, 2F, Bldg. J, School of Science	

Other Rooms

Membership Fee & Extended Abstracts	A315, 3F, CELAS Bldg. A
Discussion Areas	A101, A102 & A104, 1F, CELAS Bldg. A
Book Display and Sale	A304 & A305, 3F, CELAS Bldg. A
Executive Committee, MSJ President	A205, 2F, CELAS Bldg. A
Official Party	1F, Cafeteria Kasane