

2026 The Mathematical Society of Japan

ANNUAL MEETING

Dates: March 23rd (Mon)–26th (Thu), 2026

Venue: Kagurazaka Campus, Tokyo University of Science
1-3 Kagurazaka, Shinjuku-ku, Tokyo 162-8601, JapanContact to: Faculty of Science, Tokyo University of Science
1-3 Kagurazaka, Shinjuku-ku, Tokyo 162-8601, Japan
E-mail tus26mar@mathsoc.jp

The Mathematical Society of Japan

	I Bldg. 2 211	II Bldg. 2 212	III Bldg. 2 231	IV Bldg. 2 241	V Bldg. 2 233	VI Bldg. 8 831	VII Bldg. 8 832	VIII Bldg. 6 621	IX Bldg. 6 622
23rd (Mon)	Algebra 9:30–12:00 15:30–18:00	Functional Equations 9:30–12:00 14:15–16:45	Topology 9:30–11:15 14:15–15:15	Geometry 9:30–11:30 14:15–16:15	Complex Analysis 9:30–11:00	Found. of Math. & Hist. of Math. 9:00–11:25 15:30–17:30	Functional Analysis 9:30–11:45 14:15–15:15	Statistics and Probability 9:30–11:50	Applied Mathematics 9:30–11:35 14:15–16:25
	Featured Invited Talks					13:00–14:00			
	Invited Talk 14:15–15:15	Invited Talk 17:00–18:00	Invited Talk 15:30–16:30	Invited Talk 16:30–17:30	Invited Talk 14:20–15:20	Invited Talk 14:15–15:15	Invited Talk 15:30–16:30	Invited Talks 14:15–15:15 15:30–16:30	Invited Talk 16:40–17:40
24th (Tue)	Algebra 9:00–12:00 12:50–14:00	Functional Equations 9:00–12:00 Invited Talk 13:00–14:00	Topology 9:30–11:00	Geometry 9:30–11:00 Invited Talk 13:00–14:00	Complex Analysis 9:30–11:30 Invited Talk 13:00–14:00	Found. of Math. & Hist. of Math. 9:00–11:45 Invited Talk 13:00–14:00	Functional Analysis 9:45–10:30 Invited Talk 10:45–11:45	Statistics and Probability 9:30–11:50	Applied Mathematics 9:15–11:40
	MSJ Prizes Presentation (624, Building no. 6) (14:30–15:00)				Plenary Talks (624, Building no. 6) Spring Prize Winner (15:15–16:15)				
	Official Party (Risoukai Club) (18:00–20:00)				Senjo Shimizu (Kyoto Univ.) (16:30–17:30)				
25th (Wed)	Algebra 9:00–12:00	Functional Equations 9:00–12:00 14:15–16:45	Topology 9:30–11:15 14:30–16:15	Geometry 9:30–11:30 14:15–16:15	Real Analysis 9:30–11:45 14:15–15:30	Infinite Analysis 10:30–11:45 14:15–15:45	Functional Analysis 9:30–11:25 14:15–15:15	Statistics and Probability 10:00–12:00	Applied Mathematics 9:25–12:00 14:50–16:30
	Featured Invited Talks					13:00–14:00			
	Invited Talks 14:40–15:40 16:00–17:00	Invited Talk 17:00–18:00	Invited Talk 16:30–17:30		Invited Talk 15:45–16:45	Invited Talk 16:00–17:00	Invited Talk 15:30–16:30	Invited Talks 14:15–15:15 15:30–16:30	Invited Talk 16:45–17:45
26th (Thu)	Algebra 9:30–12:00 15:30–17:15	Functional Equations 9:30–12:00 14:15–16:45	Topology 9:30–11:00 14:15–16:45	Geometry 9:30–10:45	Real Analysis 9:00–12:00 14:15–16:40	Infinite Analysis 10:30–11:45		Statistics and Probability 10:00–11:40	Applied Mathematics 9:25–12:00 14:15–15:15
	Featured Invited Talks					13:00–14:00			
	Invited Talk 14:15–15:15	Invited Talk 17:00–18:00		Invited Talk 11:00–12:00	Invited Talk 16:50–17:50	Invited Talk 14:15–15:15			Invited Talk 15:30–16:30

MSJ Spring Meeting 2026

Organizing Committee Chair of Organizing Committee Masahito OHTA (Tokyo University of Science)
 Chair of Executive Committee Masanari KIDA (Tokyo University of Science)
 Vice Chair of Executive Committee Hiroki HASHIGUCHI (Tokyo University of Science)

Organizer The Mathematical Society of Japan

Co-organizer Tokyo University of Science

Acknowledgements We would like to thank Tokyo University of Science for their great cooperation in organizing this Spring Meeting.

Registration for Participation

Visit the following link to register.

<https://www.mathsoc.jp/activity/meeting/tus26mar/reg.html> (in Japanese)

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

Please register by March 22nd (Sun) if possible. (You can register during this annual meeting.)



Plenary Talks

March 24th (Tue) 624, 2F, Building no. 6

Award Lecture for the 2026 MSJ Spring Prize

Spring Prize Winner (15:15–16:15)

Senjo Shimizu (Kyoto Univ.) Free boundary problems for fluids based on the maximal regularity theorem (16:30–17:30)

Featured Invited Talks

March 23rd (Mon)

Conference Room I

Kenshi Miyabe (Meiji Univ.) Algorithmic randomness: its theory and connection with analysis (13:00–14:00)

Conference Room II

Guest Talk from the Japan Society for Industrial and Applied Mathematics

Takayasu Matsuo (Univ. of Tokyo) Structure-preserving numerical methods and their applications (13:00–14:00)

Conference Room III

Tatsuhiko Yagasaki (Kyoto Inst. Tech.*) On topologies of homeomorphism groups and diffeomorphism groups of noncompact manifolds (13:00–14:00)

March 25th (Wed)

Conference Room X

Yoshihisa Saito (Rikkyo Univ.)^b Elliptic root systems and thier applications to representation theory (13:00–14:00)

Conference Room XI

Noriaki Yamazaki (Kanagawa Univ.) The topology of the space of convex functions and its applications (13:00–14:00)

March 26th (Thu)

Conference Room X

Seiya Negami (Yokohama Nat. Univ.*) Topological graph theory, its birth to the future (13:00–14:00)

Conference Room XI

Takehiko Yasuda (Univ. of Osaka) Singularities in Diophantine geometry (13:00–14:00)

Talks Invited by Research Sections and Special Session

March 23rd (Mon)

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

Makoto Tamura (Osaka Sangyo Univ.) On the arithmetic books in the Qin Bamboo Slips housed at the Peking University (14:15–15:15)

Algebra (Conference Room I)

Makoto Enokizono (Univ. of Tokyo) Normal stable degenerations of Horikawa surfaces (14:15–15:15)

Geometry (Conference Room IV)

Shintaro Akamine (Nihon Univ.) Constant mean curvature surfaces in certain spaces with degenerate metrics (16:30–17:30)

Complex Analysis (Conference Room V)

Masayo Fujimura (Nat. Defense Acad. of Japan) Geometric properties of finite Blaschke products (14:20–15:20)

Functional Equations (Conference Room II)

Award Lecture for the 2025 MSJ Analysis Prize

Masaharu Taniguchi (Okayama Univ.) Traveling front solutions of dimension $n + 1$ generate entire solutions of dimension n in reaction-diffusion equations . . . (17:00–18:00)

Functional Analysis (Conference Room VII)

Daichi Komori (Kindai Univ.) An application of Čech–Dolbeault cohomology to the symbol theory of pseudodifferential operators (15:30–16:30)

Statistics and Probability (Conference Room VIII)

Award Lecture for the 2025 MSJ Analysis Prize

David Croydon (Kyoto Univ.) Cover times of random walks on some special trees (14:15–15:15)

Kei Noba (Univ. of Osaka) On the scale functions of stochastic processes with no positive jumps (15:30–16:30)

Applied Mathematics (Conference Room IX)

Yusuke Ide (Nihon Univ.) Eigenspaces related to quantum walks on graphs (16:40–17:40)

Topology (Conference Room III)

Yuya Murakami (RIKEN) Quantum modularity for quantum invariants (15:30–16:30)

March 24th (Tue)

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

Shota Motoura (Otemon Gakuin Univ.) A general framework and inverse action operators for dynamic epistemic logic (13:00–14:00)

Geometry (Conference Room IV)

Tadayuki Watanabe (Kyoto Univ.) Graph complexes and diffeomorphism groups (13:00–14:00)

Complex Analysis (Conference Room V)

Yuya Takeuchi (Univ. of Tsukuba) CR Paneitz operator and embeddability (13:00–14:00)

Functional Equations (Conference Room II)

Award Lecture for the 2025 MSJ Analysis Prize

Goro Akagi (Tohoku Univ.) Asymptotic analysis of solutions to nonlinear diffusion equations based on quantitative gradient inequalities (13:00–14:00)

Functional Analysis (Conference Room VII)Yohei Ito (Aoyama Gakuin Univ.)^b Regular and irregular Riemann–Hilbert correspondences for \mathcal{D} -modules (10:45–11:45)

March 25th (Wed)

Algebra (Conference Room I)

Award Lecture for the 2026 MSJ Algebra Prize

Shigeo Koshitani (Chiba Univ.*) Research on modular representation theory of finite groups (14:40–15:40)

Award Lecture for the 2026 MSJ Algebra Prize

Shunsuke Yamana (Osaka Metro. Univ.) Automorphic forms and L-functions (16:00–17:00)

Functional Equations (Conference Room II)

Kunio Hidano (Tokyo City Univ.) Global existence and combined effect for systems of nonlinear wave equations without the null condition (17:00–18:00)

Real Analysis (Conference Room V)

Ryoji Fukuda (Oita Univ.) Möbius transform and related developments (15:45–16:45)

Functional Analysis (Conference Room VII)

Masatoshi Ito (Maebashi Inst. of Tech.) Various weighted means and their relations (15:30–16:30)

Statistics and Probability (Conference Room VIII)

Michiko Okudo (Chiba Univ.) Foundations of information geometry and its applications to Bayesian statistics (14:15–15:15)

Hideatsu Tsukahara (Seijo Univ.) Statistics of risk measures (15:30–16:30)

Applied Mathematics (Conference Room IX)

Tomoki Uda (Univ. of Toyama) Advances in anisotropy-aware topological data analysis ... (16:45–17:45)

Topology (Conference Room III)

Florent Schaffhauser (Heidelberg Univ.) Moduli of vector bundles over real algebraic curves (16:30–17:30)

Infinite Analysis (Conference Room VI)

Shunya Adachi (Utsunomiya Univ.) On Katz theoretic integral transformations (16:00–17:00)

March 26th (Thu)

Algebra (Conference Room I)

Akiyoshi Tsuchiya (Toho Univ.) Interactions between commutative algebra and graph coloring theory (14:15–15:15)

Geometry (Conference Room IV)

Hiroshi Tamaru (Osaka Metro. Univ.) Quandles and symmetric spaces (11:00–12:00)

Functional Equations (Conference Room II)

Tatsu-Hiko Miura (Hirosaki Univ.) Difference estimate for weak solutions to the Navier–Stokes equations in a thin spherical shell and on the unit sphere (17:00–18:00)

Real Analysis (Conference Room V)

Takahito Kashiwabara (Univ. of Tokyo) H^2 -regularity for variational inequalities of Navier–Stokes type (16:50–17:50)

Applied Mathematics (Conference Room IX)

Asuka Takatsu (Univ. of Tokyo)^b How do we choose a geometry on the space of probability measures? (15:30–16:30)

Infinite Analysis (Conference Room VI)

Shinsuke Iwao (Keio Univ.) Solving the Bethe equations for periodic TASEP and proving completeness (14:15–15:15)

Open Lectures for Citizens

Date: March 22nd (Sun) 14:00–16:30

Venue: 624, 2F, Building no. 6

Organizer: The Mathematical Society of Japan

Co-organizer: Tokyo University of Science

Program: Opening Speech (14:00–14:05)

Kazuhiro Ishige (President of MSJ/Univ. of Tokyo)

Lecture 1: “Aperiodic tile sets: what are they?” (14:10–15:10)

Shigeki Akiyama (Univ. of Tsukuba)

Lecture 2: “An endless passion for mathematics” (15:30–16:30)

Jin Akiyama (Tokyo Univ. of Sci.)

Web Page: <https://www.mathsoc.jp/en/meeting/tus26mar/>

Foundation of Mathematics and History of Mathematics

March 23rd (Mon) Conference Room VI

9:00–11:25

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|---|---|---|----|
| 1 | Masato Fujita
(Japan Coast Guard Acad.) | Weakly ω -minimal structures possessing exactly m dimension functions
..... | 15 |
| 2 | Koichiro Ikeda (Hosei Univ.) | On theories with the strong tree property | 15 |
| 3 | Akito Tsuboi (Univ. of Tsukuba*) | Chromatic properties of U-rank one graphs | 10 |
| 4 | Koki Okura (Univ. of Tsukuba) | On distal expansions | 15 |
| 5 | Hiroataka Kikyo (Kobe Univ.) | On Hrushovski's construction and chromatic number | 15 |
| 6 | Toshio Suzuki (Tokyo Metro. Univ.)
Masahiro Kumabe
(Open Univ. of Japan)
Kenshi Miyabe (Meiji Univ.) | The field generated by left c.e. reals below a weakly computable real
..... | 15 |
| 7 | Kohtaro Tadaki (Chubu Univ.) | The Wigner–Deutsch collaboration | 15 |
| 8 | Makoto Fujiwara (Tokyo Univ. of Sci.)
Benno van den Berg
(Univ. of Amsterdam) | Goodman's theorem and Markov's principle | 15 |
| 9 | Yuzuki Kaneko (Tohoku Univ.)
Keita Yokoyama (Tohoku Univ.) | Quasi-metric spaces in reverse mathematics | 15 |

11:40–11:55 Research Section Assembly

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

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| Makoto Tamura (Osaka Sangyo Univ.) | On the arithmetic books in the Qin Bamboo Slips housed at the Peking University |
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15:30–17:30

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| 10 | Katsushi Waki (Yamagata Univ.) ^b | Extraction of geometric areas from Wasan books using NDL Classical Books OCR-Lite | 15 |
| 11 | Noriko Tanaka (Naragakuen Univ.) | A comparison of mathematical expressions in schools during the Edo period | 15 |
| 12 | Koichi Hirata
(Matsuyama Univ./Ehime Univ.*) | Renjutsu and their solutions with rational number as radii | 15 |
| 13 | Tsukane Ogawa (Yokkaichi Univ.)
Noriko Tanaka (Naragakuen Univ.) | <i>Jinkouki</i> as an abacus book | 15 |
| 14 | Hideyuki Majima (Ochanomizu Univ.*) | On the publication of Katsuyousanpou | 15 |
| 15 | Michiyo Nakane | The emergence of the Hamilton–Jacobi theory in the calculus of variations | 15 |
| 16 | Ken Saito
(Osaka Pref. Univ.*/Yokkaichi Univ.) | Making vocabulary of ancient Greek to read Greek mathematical works
..... | 15 |

17:45–18:00 Mathematics History Team Meeting

March 24th (Tue) Conference Room VI

9:00–11:45

17	Yusuke Hayashi (Kobe Univ.)	Stationary list colorings	15
18	Kenta Tsukuura (Nat. Fisheries Univ.)	Coloring triples of uncountable sets	15
19	Toshimasa Tanno (Kobe Univ.)	Perfect set dichotomy theorem in generalized Solovay model	15
20	Hiroaki Minami (Aichi Gakuin Univ.)	The splitting and reaping number for mad families	15
21	Yasuo Yoshinobu (Nagoya Univ.)	More on convex sets and the axiom of choice	15
22	<u>Ken-etsu Fujita</u> (Tokyo Denki Univ.) Toshihiko Kurata (Hosei Univ.)	Girard's paradox and T-algebras	15
23	Yoshihito Tanaka (Sci. Tokyo/Kyushu Sangyo Univ.)	Neighborhood models for predicate modal logics with ω -rules	15
24	Takahiro Seki (Niigata Univ.)	Classification of non-associative substructural logics with contraposition	15
25	Taishi Kurahashi (Kobe Univ.)	Derivability conditions E and C and the second incompleteness theorem	15
26	Haruka Kogure (Kobe Univ.)	Arithmetical completeness based on neighborhood semantics	15

13:00–14:00 Talk Invited by Section on Foundation and History of Mathematics

	Shota Motoura (Otemon Gakuin Univ.)	A general framework and inverse action operators for dynamic epistemic logic	
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Algebra

March 23rd (Mon) Conference Room I

9:30–12:00

1	John Ashley Navarro Capellan (Nagoya Univ.)	Towards the McKay correspondence for dimer models: The arrow contraction algorithm and the consistency condition	13
2	Kotaro Kawatani (Wakayama Med. Univ.)	Infinitesimal deformation of algebraic curves and Bridgeland stability condition	13
3	Hisato Matsukawa (Hokkaido Univ.)	Equivalences between derived categories of non-proper varieties	13
4	Yuki Tochitani (Tokyo Metro. Univ.)	Autoequivalences of derived categories of bielliptic surfaces	13
5	Atsushi Ito (Univ. of Tsukuba) Shinnosuke Okawa (Univ. of Osaka) <u>Makoto Miura</u> (Univ. of Osaka)	An example of derived equivalence across a geometric transition	13

9 Algebra

- 6 Makoto Sakurai (Kaichi Gakuen) Redefinition of chiral algebra theory by ind-coherent sheaves and toric degenerations 13
- 7 Yuki Kato (Kurume Nat. Coll. of Tech.) The stable model category of mixed motives from the excisive approximation of the category of non-unital algebras 13
- 8 Hideya Kuwata (Kindai Univ. Tech. Coll.) Explicit coefficients in the product $c_k c_{n-k}$ of Chern classes on the permutohedral variety of type A_n 13
- 9 Ryunosuke Nakano (Hokkaido Univ.) Keiji Matsumoto (Hokkaido Univ.) Algebro-geometric aspects of the iterative limit theorem for a quaternary of means of four terms 13

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

- Makoto Enokizono (Univ. of Tokyo) Normal stable degenerations of Horikawa surfaces

15:30–18:00

- 10 Tomohiro Iwami (Kyushu Inst. of Tech.) Triple covers of certain irregular three-folds with small c_1^3 or $c_1 c_2$, Part I 13
- 11 Lucas Hiroyuki Ragni Hamada (Sci. Tokyo) Classification of torsion subgroups of elliptic curves with rational j -invariant 13
- 12 Yuya Yamamoto (Yokohama Nat. Univ.) The multiplicity-one theorem for the superspeciality of hyperelliptic curves 13
- 13 Satoru Fukasawa (Yamagata Univ.) New examples of tangentially degenerate curves 13
- 14 Ken Sato (Sci. Tokyo) On symplectic action on $(2,1)$ -cycles on K3 surfaces 13
- 15 Masayuki Hirokado (Hiroshima City Univ.) Classification of two-dimensional rational triple points in positive characteristic 13
- 16 Tatsuki Yamaguchi (Sci. Tokyo) Uniform positivity of F-signature and F-alpha invariant 13
- 17 Takuya Nemoto (Waseda Univ.) Globally generated vector bundles on the del Pezzo threefold of degree 6 with Picard number 2 13
- 18 Yuta Takahashi (Chuo Univ.) Weak Fano bundles of rank 2 over hyperquadrics Q^n of dimension $n \geq 5$ 13
- 19 Yuki Kondo (Univ. of Osaka) Yasuhiro Wakabayashi (Univ. of Osaka) Degree of Verschiebung: A combinatorial perspective via higher level dormant opers 13

March 24th (Tue) Conference Room I

9:00–12:00

- 20 Haruki Domoto (Yamaguchi Univ.) Tadaaki Igawa Makoto Minamide (Yamaguchi Univ.) Yoshio Tanigawa A problem on a -kernel of an integer 10
- 21 Haruka Sakai (Yamaguchi Univ.) Makoto Minamide (Yamaguchi Univ.) Yoshio Tanigawa On a theorem of Turán 10
- 22 Keita Nakai (Nagoya Univ.) Effective estimates of universality for Hurwitz zeta-functions with rational parameters 13

23	<u>Takashi Miyagawa</u> (Onomichi City Univ.) Hideki Murahara (Univ. of Kitakyushu)	On the mean values of the Barnes multiple zeta function 13
24	Genki Shibukawa (Kitami Inst. of Tech.)	Generating functions of multiple zeta values at non-positive integers 13
25	Mahiro Yokomizo (Tohoku Univ.)	Modular iterated integrals and multiple L -functions 13
26	Hayato Kanno (Tohoku Univ.)	Family of linear relations among multiple Eisenstein series 13
27	Tomoko Kikuchi (Sophia Univ.) <u>Maki Nakasuji</u> (Sophia Univ./Tohoku Univ.)	The explicit formula for multi-indexed poly-Bernoulli numbers of general indices. 13
28	Ryotaro Harada (Tokyo Univ. of Sci.) Yen-Tsung Chen (Pennsylvania State Univ.)	Linear relations among algebraic points on tensor powers of the Carlitz module 13
29	Kazuki Yamada (Gakushuin Univ.)	Homotopy exact sequences and Hyodo–Kato isomorphism for log rigid fundamental groups 13
30	Kazuki Yamada (Gakushuin Univ.)	Description of p -adic polylogarithms via semistable reduction 13
31	Daichi Tanaka (Tohoku Univ.)	Maass forms associated with Hecke characters of real quadratic fields and an analogy of Stark (1975) 13
32	Yuichi Sakai (Kurume Inst. of Tech.) Hiroyuki Tsutsumi (Osaka Univ. of Health and Sport Sci.)	The Schwarzian derivative of the KZ equation and its applications . . . 13
12:50–14:00		
33	Kohei Fujita (Hokkaido Univ.)	An analogue of Ogus’s theorem for certain hypergeometric curves 13
34	<u>Chihiro Ando</u> (Yokohama Nat. Univ.) Shushi Harashita (Yokohama Nat. Univ.)	The Lang–Trotter conjecture on average for genus-2 curves with Klein-4 or S_3 reduced automorphism group 13
35	Ki Sen (Yokohama Nat. Univ.)	Explicit bounds for the norms of ideals of central simple algebras over number fields 13
36	Daisuke Shiomi (Yamagata Univ.)	On the divisibility of the relative class number of cyclotomic function fields 10
37	Shigeru Iitaka (Open Univ. of Japan/Gakushuin Univ.*)	On perfect numbers 2.0 10

March 25th (Wed) Conference Room I

9:00–12:00

38	Shota Maehara (Kyushu Univ.)	Chambers of line arrangements and their algebraic aspects 13
39	Ryo Uchiumi (Univ. of Osaka)	Equivariant version of characteristic quasi-polynomials for hyperplane arrangements 13
40	Toshio Oshima (Univ. of Tokyo*)	Stable hyperplane arrangements 13
41	Takafumi Kouno (Waseda Univ.)	The quantum K -theoretic Whitney relation for the flag manifold of type C 13

42	<u>Toshitaka Aoki</u> (Kobe Univ.) <u>Shunsuke Tada</u> (Tohoku Univ.)	Preservation of interval resolutions for persistence modules	13
43	<u>Toshiya Yurikusa</u> (Osaka Metro. Univ.)	Finiteness of Jacobian algebras	13
44	<u>Zelin Jia</u> (Nagoya Univ.)	Tropicalization and cluster asymptotic phenomenon of generalized Markov equations	13
45	<u>Naoki Fujita</u> (Kumamoto Univ.) <u>Akihiro Higashitani</u> (Univ. of Osaka)	Marked chain-order polytopes and polyptych lattices	13
46	<u>Yuto Nogata</u> (Hirosaki Univ.)	Group zeta functions and subgroup lattice isomorphism in semidirect products	13
47	<u>Hayaki Kudo</u> (Hirosaki Univ.) <u>Koichi Betsumiya</u> (Hirosaki Univ.) <u>Wei-Liang Sun</u> (Nat. Kaohsiung Normal Univ.)	An upper bound for cyclotomic numbers and their associated matroids	13
48	<u>Yuto Kawase</u> (Kyoto Univ.) <u>Hayato Nasu</u> (Dalhousie Univ.)	On the iterated analogue of the fundamental theorem of homomorphisms	13

14:15–14:30 Presentation Ceremony for the 2026 MSJ Algebra Prize

14:40–15:40 Award Lecture for the 2026 MSJ Algebra Prize

Shigeo Koshitani (Chiba Univ.*) Research on modular representation theory of finite groups

16:00–17:00 Award Lecture for the 2026 MSJ Algebra Prize

Shunsuke Yamana (Osaka Metro. Univ.) Automorphic forms and L-functions

March 26th (Thu) Conference Room I

9:30–12:00

49	<u>Kyosuke Maeda</u> (Nihon Univ.) <u>Tomohiro Okuma</u> (Yamagata Univ.) <u>Kei-ichi Watanabe</u> (Nihon Univ./Meiji Univ.) <u>Ken-ichi Yoshida</u> (Nihon Univ.)	Classification on nearly Gorenstein rational surface singularities with almost reduced fundamental cycle	13
50	<u>Tomohiro Okuma</u> (Yamagata Univ.) <u>Ken-ichi Yoshida</u> (Nihon Univ.) <u>Kei-ichi Watanabe</u> (Nihon Univ./Meiji Univ.)	The canonical trace ideal of elliptic surface singularities	13
51	<u>Kei-ichi Watanabe</u> (Nihon Univ.) <u>Tomohiro Okuma</u> (Yamagata Univ.) <u>Ken-ichi Yoshida</u> (Nihon Univ.)	Nearly Gorenstein normal graded rings	13
52	<u>Taiga Ozaki</u> (Sci. Tokyo) <u>Sora Miyashita</u> (Univ. of Osaka)	On higher-dimensional Teter rings via the canonical trace ideal	13
53	<u>Sora Miyashita</u> (Univ. of Osaka) <u>Shinya Kumashiro</u> (Osaka Inst. of Tech.)	Canonical traces of graded fiber products: applications to disconnected Stanley–Reisner rings	13

- 54 Kohsuke Shibata (Yonago Nat. Coll. of Tech.)
Kohji Yanagawa (Kansai Univ.) The grading of a polynomial ring associated with a simplicial poset, and injective envelopes 13
- 55 Naoki Endo (Meiji Univ.) Normality of Rees algebras of integrally closed monomial ideals 13
- 56 Koji Matsushita (Univ. of Tokyo) Gorensteinness of Ehrhart rings of matching polytopes 13
- 57 Ken-ichi Yoshida (Nihon Univ.)
Akihiro Higashitani (Univ. of Osaka) A conjecture on Hilbert–Kunz multiplicities and Ehrhart theory 13
- 58 Akihiro Higashitani (Univ. of Osaka)
Kenta Ueyama (Shinshu Univ.) On the h -polynomials of cyclotomic standard graded commutative algebras 13

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

Akiyoshi Tsuchiya (Toho Univ.) Interactions between commutative algebra and graph coloring theory

15:30–17:15

- 59 Kaito Kimura (Nagoya Univ.) On conductors, test ideals, and parameter ideals 13
- 60 Yuya Otake (Nagoya Univ.) An approach to the invariant of Auslander and Martsinkovsky 13
- 61 Yuki Mifune (Nagoya Univ.)
Souvik Dey (Arkansas Univ.)
Jian Liu (Central China Normal Univ.)
Yuya Otake (Nagoya Univ.) On the generation of the singularity category and the annihilator ideals of Ext modules 13
- 62 Kazuki Hayashi (Sci. Tokyo)
Shinnosuke Ishiro (Gunma Nat. Coll. of Tech.)
Kazuma Shimomoto (Sci. Tokyo) An application of Fontaine’s monoidal map to perfectoid towers 13
- 63 Haigang Hu (Univ. of Sci. Tech. of China)
Izuru Mori (Shizuoka Univ.)
Koki Takeda (Shizuoka Univ.)
Wenchao Wu (Shizuoka Univ.) Noncommutative affine pencils of conics 13
- 64 Daisuke Tambara (Hiroshima Univ.*) The space A^2 for a certain four-dimensional division algebra A over \mathbf{F}_2 10
- 65 Keima Akasaka (Chiba Univ.) (Op)lax twisted arrow (∞, n) -categories and their dualizability 13

Geometry

March 23rd (Mon) Conference Room IV

9:30–11:30

- 1 Hidemasa Suzuki (Chiba Univ.) More on explicit correspondences between gradient trees in \mathbb{R} and holomorphic convex quadrilaterals in $T^*\mathbb{R}$ 15

13 Geometry

- 2 Jun O'Hara (Chiba Univ.) Identification of generic polygonal domains by integral geometric functions 15
- 3 Keita Takahashi (Sci. Tokyo) Completeness conditions in Lorentzian geometry 15
- 4 Subaru Nomoto (Ritsumeikan Univ.) Generalized Bishop frames of regular timelike curves in 4-dimensional Lorentz space L^4 10
- 5 Isami Koga (Kyushu Int. Univ.) A classification of equivariant harmonic maps between spheres 15
Yasuyuki Nagatomo (Meiji Univ.)
Masaro Takahashi
(Kurume Nat. Coll. of Tech.)
- 6 Shin Nayatani (Nagoya Univ.) Generalizing the variance maximization problem for maps to that for smoothing operators 15
- 14:15–16:15**
- 7 Hikaru Kubota (Univ. of Osaka) Timelike Hausdorff measure and its volume comparison 15
- 8 Toshiaki Miyamoto (Tohoku Univ.) Direct sums and decompositions of Gromov's pyramids 15
- 9 Asuka Takatsu (Univ. of Tokyo)^b Law of large numbers for q -exponential families 15
Hiroshi Matsuzoe
(Nagoya Inst. of Tech.)
- 10 Yoshiki Jikumaru (Toyo Univ.) On the governing equations of membrane O surfaces 15
- 11 Shintaro Akamine (Nihon Univ.) Geometric properties invariant under the decomposition of zero mean curvature surfaces 15
Joseph Cho (Handong Global Univ.)
Masaya Hara
(Nat. Inst. of Tech., Anan Coll.)
Yuta Ogata (Kyoto Sangyo Univ.)
- 12 Shintaro Akamine (Nihon Univ.) Singularities on timelike minimal surfaces in the three-dimensional Heisenberg group 15
Hirotaka Kiyohara
(Osaka Kyoiku Univ.)

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

- Shintaro Akamine (Nihon Univ.) Constant mean curvature surfaces in certain spaces with degenerate metrics

March 24th (Tue) Conference Room IV

9:30–11:00

- 13 Yoshinori Hashimoto Magnitude for metric measure spaces by means of an analogue of path integrals 10
(Osaka Metro. Univ.)
- 14 Yoshinori Hashimoto Rigidity of isotropic harmonic maps from elliptic curves to projective spaces 10
(Osaka Metro. Univ.)
Bruno Mera
(Univ. de Lisboa/Tohoku Univ.)
Tomoki Ozawa (Tohoku Univ.)
- 15 Yoshinori Hashimoto Geometric invariant theory and complex structure of $SU(3)$ 10
(Osaka Metro. Univ.)
Hiroaki Ishida (Osaka Metro. Univ.)
Hisashi Kasuya (Nagoya Univ.)

14 Geometry

16 Natsuki Imada (Waseda Univ.) Higher Killing spinors on 3-dimensional manifolds 15
 Yasushi Homma (Waseda Univ.)
 Soma Ohno (Waseda Univ.)

17 Doman Takata (Niigata Univ.) Topology and noncommutative geometry of Hilbert manifolds 15

13:00–14:00 Talk Invited by Geometry Section

Tadayuki Watanabe (Kyoto Univ.) Graph complexes and diffeomorphism groups

March 25th (Wed) Conference Room IV

9:30–11:30

18 Satoshi Jinnouchi (Univ. of Osaka) On the Kobayashi–Hitchin correspondence for big classes 15

19 Kazushi Kobayashi On a noncommutative deformation of holomorphic line bundles on
 (Univ. of Teacher Edu. Fukuoka) complex tori and the SYZ transform 15

20 Naoto Yotsutani (Shizuoka Univ.) Toric Fano manifolds that do not admit extremal Kähler metrics 15
 DongSeon Hwang
 (IBS Center for Complex Geometry)
 Hiroshi Sato (Fukuoka Univ.)

21 Naoto Yotsutani (Shizuoka Univ.) On the blow-up formula of Chow weights for polarized toric manifolds
 King Leung Lee (Univ. of Montpellier) and its application 15

22 Shotaro Murayama Mabuchi constants and Mabuchi solitons on Fano admissible manifolds
 (Tokyo Univ. of Sci.) 15
 Yasufumi Nitta (Tokyo Univ. of Sci.)

23 Masaya Kawamura On the Calabi flow on quasi-Kähler manifolds 15
 (Sugiyama Jogakuen Univ.)

14:15–16:15

24 Hiroshi Sawai The fundamental 2-form on a non-Vaisman LCK solvmanifold 15
 (Numazu Nat. Coll. of Tech.)

25 Ken Kuwata The number of elliptic curves and Gromov–Witten invariants for four-
 (Nat. Inst. of Tech., Kagawa Coll.) dimensional Fano hypersurfaces 15
 Masao Jinzenji (Okayama Univ.)

26 Taito Shimoji (Univ. of Osaka) Bigraded Lie algebras and the nilpotent fundamental groups of quasi-
 projective varieties 15

27 Tsukasa Takeuchi (Meteorological Coll.) Haantjes operators on 4-dimensional phase spaces 15
 Kei-ichi Kiku-chi (Tokyo Univ. of Sci.)

28 Daichi Arimatsu (Sci. Tokyo) The mixed Hodge structure on the fundamental group of the Collino
 surface 15

29 Tadashi Udagawa (Waseda Univ.) Construction of the tt^* -equation with ADE-type Stokes data 15

March 26th (Thu) Conference Room IV

9:30–10:45

- 30 Osamu Ikawa (Kyoto Inst. Tech.) Sum of Betti numbers of intersections of real flag manifolds 15
Hiroyuki Tasaki
 (Tokyo Metro. Univ./Univ. of Tsukuba)
- 31 Naoki Kato (Chukyo Univ.) Infinitely many left-symmetric structures on nilpotent Lie algebras ... 15
- 32 Genki Ishikawa (Ritsumeikan Univ.) Stability analysis for the pseudo-Riemannian geodesic flows of step-two
Daisuke Tarama (Ritsumeikan Univ.) nilpotent Lie groups 15

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

- Hiroshi Tamaru (Osaka Metro. Univ.) Quandles and symmetric spaces

Complex Analysis

March 23rd (Mon) Conference Room V

9:30–11:00

- 1 Hideki Miyachi (Kanazawa Univ.) Towards a dynamical perspective on the mapping class group 15
- 2 Takuya Hosokawa Hyperbolic derivative via composition operators 15
Shūichi Ohno
- 3 Masahiro Yanagishita On an elementary example of Loewner chains of universal covering
 (Yamaguchi Univ.) mappings 15
- 4 Erika Sakurai (Waseda Univ.) On quadrilateral groups which are index finite subgroups of arithmetic
Keisuke Souma (Waseda Univ.) triangle groups 15
Yohei Komori (Waseda Univ.)
- 5 Shun Kumagai Self-affinity, Möbius geometry and Schwarzian-pre-Schwarzian deriva-
 (Hachinohe Inst. of Tech.) tive 15
Kenji Kajiwara (Kyushu Univ.)

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

- Masayo Fujimura Geometric properties of finite Blaschke products
 (Nat. Defense Acad. of Japan)

March 24th (Tue) Conference Room V

9:30–11:30

- 6 Takeo Ohsawa (Nagoya Univ.) Extending holomorphic functions from analytic complements of com-
 plete Kähler domains 15
- 7 Takanori Ayano (Osaka Metro. Univ.) Sigma function associated with a hyperelliptic curve with two points at
Victor M. Buchstaber infinity 15
 (Steklov Math. Inst.)

8	Shaolin Chen (Guangxi Normal Univ.) <u>Hidetaka Hamada</u> (Kyushu Sangyo Univ.)	Hardy spaces on bounded symmetric domains I	15
9	Shaolin Chen (Guangxi Normal Univ.) <u>Hidetaka Hamada</u> (Kyushu Sangyo Univ.)	Hardy spaces on bounded symmetric domains II	10
10	<u>Hidetaka Hamada</u> (Kyushu Sangyo Univ.) Gabriela Kohr (Babeş-Bolyai Univ.) Mirela Kohr (Babeş-Bolyai Univ.)	Roper–Suffridge type extension operators for univalent mappings revisited	15
11	<u>Hidetaka Hamada</u> (Kyushu Sangyo Univ.) Gabriela Kohr (Babeş-Bolyai Univ.) Mirela Kohr (Babeş-Bolyai Univ.)	Koebe one-quarter theorem in infinite dimensions	15
12	Masakazu Takakura (Tokyo Metro. Univ.)	On the weighted L^2 approximation problems	15

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

Yuya Takeuchi (Univ. of Tsukuba) CR Paneitz operator and embeddability

Functional Equations

March 23rd (Mon) Conference Room II

9:30–12:00

1	Yoshiaki Goto (Otaru Univ. of Commerce)	The Riemann–Wirtinger integral on the product of two one-dimensional complex tori	12
2	Sunao Ōuchi (Sophia Univ.*)	Another elementary approach to WKB analysis	12
3	<u>Tomoyuki Tanigawa</u> (Osaka Metro. Univ.) Takaši Kusano (Hiroshima Univ.*) Jaroslav Jaroš (Comenius Univ.) Hiroyuki Usami (Gifu Univ.*)	Amplitude and zero distribution of oscillatory solutions of half-linear differential equations	12
4	Mingzhu Qu (Hulunbuir Univ.) Wei Zheng (Heilongjiang Univ.) <u>Hideaki Matsunaga</u> (Osaka Metro. Univ.)	Asymptotic stability of linear differential equation with two distributed delays	12
5	<u>Hiroyuki Usami</u> (Gifu Univ.*) Manabu Naito (Ehime Univ.*)	Necessary conditions for half-linear ordinary differential equations in order that they have solutions behaving exponentially II	12
6	Masakazu Onitsuka (Okayama Univ. of Sci.)	Conditional Ulam stability for a discrete logistic model	12

- 7 Hiroyuki Yamagishi (Tokyo Metropolitan Coll. of Indus. Tech.)
Kohtaro Watanabe (Nat. Defense Acad. of Japan)
Atsushi Nagai (Tsuda Coll.) The best constant of the m -th Sobolev inequality ($m = 0, 1, 2$) corresponding to the clamped boundary value problem for $(-1)^M(d/dx)^{2M}$ 10
- 8 Tetsutaro Shibata (Hiroshima Univ.*). Exact solutions and bifurcation curves of nonlocal elliptic equations with convolutional Kirchhoff functions 12
- 9 Satoshi Tanaka (Tohoku Univ.)
Kanakano Manabe (JG Corporation) Morse index and global bifurcation of positive solutions to the one-dimensional Liouville type equation with a step function weight 12
- 10 Akira Toyoshima (Tohoku Univ.)
Norisuke Ioku (Tohoku Univ.) The separation property of radial solutions to Hénon type equation on the hyperbolic space 12
- 14:15–16:45**
- 11 Takashi Suzuki (Osaka Univ.)
Yohei Toyota (Nat. Inst. of Tech., Nara Coll.) Boundedness of the variational functionals associated with point vortices with multi-intensities 5
- 12 Naoki Hamamoto (Osaka Metro. Univ.) Poincaré constant for vector fields on the ball with tangential boundary condition 12
- 13 Ryuji Kajikiya (Osaka Electro-Comm. Univ.) Asymmetry of solutions for the Hénon equation in unbounded domains 12
- 14 Kotaro Motegi (Sci. Tokyo) A regularity theorem for weak solutions to mean curvature flow with forcing term 12
- 15 Shuhei Kitano (Univ. of Tokyo) ABP maximum principle for 1-Laplace type equations 12
- 16 Shuntaro Tsubouchi (Univ. of Tokyo) Gradient continuity for the parabolic $(1, p)$ -Laplace system with an external force term 12
- 17 Shigeru Sakaguchi (Tohoku Univ.*)
Andrea Bisterzo (Scuola Normale Superiore) Serrin's overdetermined problem on the three-dimensional sphere and Clifford tori 12
- 18 Toru Nakajima (Shizuoka Univ.) On isolated singular points of stable-stationary harmonic maps 10
- 19 Kiichi Tashiro (Sci. Tokyo)
Jingon An (Univ. of Basel) On singular limit of the free boundary Allen–Cahn energy 12
- 20 Daowen Lin (Okinawa Inst. of Sci. and Tech. Grad. Univ.)
Yang Zhou (Univ. of Sci. Tech. of China) Liouville theorem for a semi-linear sub-elliptic equation on the quaternionic Heisenberg group 12

17:00–18:00 Award Lecture for the 2025 MSJ Analysis Prize

- Masaharu Taniguchi (Okayama Univ.) Traveling front solutions of dimension $n + 1$ generate entire solutions of dimension n in reaction-diffusion equations

March 24th (Tue) Conference Room II

9:00–12:00

- 21 Kimie Nakashima (Tokyo Univ. of Marine Sci. and Tech./Tohoku Univ.)
Yasuhito Miyamoto (Univ. of Tokyo) Eigenvalues of spike cluster solutions of inhomogeneous scalar field equations 12

- 22 Kouichi Takemura (Ochanomizu Univ.) The Lamé equation on a circle and applications to singular limit eigenvalue problems 10
Yasuhito Miyamoto (Univ. of Tokyo)
Tohru Wakasa (Kyushu Inst. of Tech.)
- 23 Kotaro Hisa (Fukuoka Univ.) Threshold property of a singular stationary solution for semilinear heat equations with exponential growth 10
Yasuhito Miyamoto (Univ. of Tokyo)
- 24 Kotaro Hisa (Fukuoka Univ.) On blow-up rate for the Hénon parabolic equation with Sobolev supercritical nonlinearity 10
Yukihiro Seki (Tokyo Metro. Univ.)
- 25 Hideyuki Miura (Sci. Tokyo) Blow-up rate for the subcritical semilinear heat equation in non-convex domains 12
Jin Takahashi (Sci. Tokyo)
Erbol Zhanpeisov (Tohoku Univ.)
- 26 Yohei Sato (Saitama Univ.) On the existence and nonexistence of solutions to the 1D nonlinear Schrödinger equation with a Dirac-type potential 12
- 27 Yu Su (Anhui Univ. of Sci. Tech.) Ground state solutions for critical nonlocal elliptic equations with doping profile 12
Tatsuya Watanabe
(Kyoto Sangyo Univ.)
- 28 Rikuya Kakinuma (Tohoku Univ.) Existence of L^2 normalized solutions to scalar field equations with absorptions 12
- 29 Yutaro Chiyo (Tokyo Univ. of Sci.) Boundedness and finite-time blow-up in a quasilinear fully parabolic attraction-repulsion chemotaxis system 12
Kazuki Hasegawa (Tokyo Univ. of Sci.)
Takeshi Uemura (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
- 30 Shohei Kohatsu (Tokyo Univ. of Sci.) Stability of radial steady states to a chemotaxis system with supercritical flux-dependent sensitivity 12
Takasi Senba (Kanagawa Univ.)
- 31 Mario Fuest (Leibniz Univ. Hannover) Blow-up in a fully parabolic chemotaxis-growth system 12
Johannes Lankeit
(Leibniz Univ. Hannover)
Masaaki Mizukami
(Kyoto Univ. of Edu.)
- 32 Kosuke Shibata (Univ. of Osaka) Existence of axis-symmetric blow-up solutions with multiple peak aggregations for the 2- D Keller-Segel system coupled with a bipolar source-sink flow 12
Yoshie Sugiyama (Univ. of Osaka)
Yukihiro Seki (Tokyo Metro. Univ.)

13:00–14:00 Award Lecture for the 2025 MSJ Analysis Prize

- Goro Akagi (Tohoku Univ.) Asymptotic analysis of solutions to nonlinear diffusion equations based on quantitative gradient inequalities

March 25th (Wed) Conference Room II

9:00–12:00

- 33 Yusuke Oka (Univ. of Tokyo) On the solvability of fractional semilinear heat equations with distributional inhomogeneous terms 12
- 34 Sho Katayama (Univ. of Tokyo) Fundamental solution to the heat equation with a dynamical boundary condition 12
Kazuhiro Ishige (Univ. of Tokyo)
Tatsuki Kawakami (Ryukoku Univ.)

- 35 Md. Rabiul Haque (Rajshahi Univ.)^b Global well-posedness of initial value problems for systems of convection-diffusion equations in uniformly local Lebesgue spaces 12
Takayoshi Ogawa (Waseda Univ.)
Atsuko Okada (Kitasato Univ.)
- 36 Kosuke Shibuya (Tohoku Univ.)^b Global solvability for small initial data in critical Besov spaces for the convection-diffusion equation with fractional dissipation 12
Takayoshi Ogawa (Waseda Univ.)
- 37 Ayuki Sekisaka (Meiji Univ.) Instability mechanism for a nonlocal reaction-diffusion equation 12
Hiroko Sekisaka-Yamamoto (RIKEN)
- 38 Ryo Ito (Kanagawa Univ.) Existence and nonexistence of unbounded traveling wave solutions for reaction-diffusion equations 12
Hirokazu Ninomiya (Meiji Univ.)
- 39 Kazuhiro Oeda (Kyushu Sangyo Univ.) Nonlinear diffusion limit and bifurcation structure in a prey-predator system with a protection zone 12
Kousuke Kuto (Waseda Univ.)
- 40 Masahiko Shimojo Convergence to traveling waves for reaction-diffusion systems using Lyapunov type arguments 12
(Tokyo Metro. Univ.)
Arnaud Ducrot
(Univ. Le Havre Normandie)
- 41 Hiroko Sekisaka-Yamamoto (RIKEN) Reaction-diffusion approximation for nonlocal evolution equations 12
Ayuki Sekisaka (Meiji Univ.)
- 42 Ikkei Shimizu (Kyoto Univ.) Time decay estimate for localized perturbation around helical state for the Landau–Lifshitz–Gilbert equation 12
- 43 Takumi Kanai (Tokyo Univ. of Sci.) Characterization of the wave front set of solutions to the fractional Schrödinger equation with potentials 12
Ryo Muramatsu (Tokyo Univ. of Sci.)
Yuusuke Sugiyama
(Tokyo Univ. of Sci.)
- 44 Ryo Muramatsu (Tokyo Univ. of Sci.) Well-posedness on modulation spaces for Schrödinger equations with long-range magnetic fields 12
- 45 Shun Takizawa (Tokyo Univ. of Sci.) Strichartz estimates in Wiener amalgam spaces for Schrödinger equations with at most quadratic potentials 12
- 14:15–16:45**
- 46 Koichi Komada (Ritsumeikan Univ.) Large data scattering for the defocusing generalized Boussinesq equation 12
- 47 Yu Zhou (Hokkaido Univ.) Nonlinear wave equations on the half-line with nonlinear boundary condition 12
Hideo Kubo (Hokkaido Univ.)
- 48 Tomoyuki Tanaka Improved refined bilinear estimates and well-posedness for generalized KdV type equations 12
(Yokohama Nat. Univ.)
Luc Molinet (Univ. of Tours)
- 49 Kaito Kokubu (Tokyo Univ. of Sci.) Classification of unstable travelling wave solutions to KdV type equations 12
- 50 Takuma Yoshizumi (Univ. of Osaka) Blow-up for nonlinear Klein–Gordon equations in contracting cosmological backgrounds 12
Kimitoshi Tsutaya (Hirosaki Univ.)
Yuta Wakasugi (Hiroshima Univ.)
Makoto Nakamura (Univ. of Osaka)

- 51 Naoyasu Kita (Kumamoto Univ.) Time decay of solutions to nonlinear Schrödinger equations with attractive-dissipative nonlinearity 12
Hayato Miyazaki (Kagawa Univ.)
Takuya Sato (Ehime Univ.)
- 52 Hayato Miyazaki (Kagawa Univ.) Nonexistence of scattering states for nonlinear Schrödinger equations without gauge invariance 12
Motohiro Sobajima
(Tokyo Univ. of Sci.)
- 53 Toshiki Kondo (Univ. of Osaka) Non-existence of solutions to the Cauchy problem for semi-linear Schrödinger equation on the torus 12
Mamoru Okamoto (Hiroshima Univ.)
- 54 Toshiki Kondo (Univ. of Osaka) Well-posedness of the Cauchy problem for derivative fractional nonlinear Schrödinger equations on torus 12
Takamori Kato (Saga Univ.)
Mamoru Okamoto (Hiroshima Univ.)
- 55 Satoshi Masaki (Hokkaido Univ.) On non-polynomial conserved quantity for a class of cubic ODE system 12
Jun-ichi Segata (Kyushu Univ.)
Kota Uriya (Okayama Univ. of Sci.)
- 56 Satoshi Masaki (Hokkaido Univ.) Global existence of solutions to a system of cubic nonlinear Schrödinger equations in one dimension 12
Jun-ichi Segata (Kyushu Univ.)
Kota Uriya (Okayama Univ. of Sci.)

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

- Kunio Hidano (Tokyo City Univ.) Global existence and combined effect for systems of nonlinear wave equations without the null condition

March 26th (Thu) Conference Room II

9:30–12:00

- 57 Masahiro Takayama (Keio Univ.) The motion of an inextensible closed string 12
Tatsuo Iguchi (Keio Univ.)
- 58 Yoshinori Furuto (Tohoku Univ.) Higher order derivative estimates of the parabolic Lamé system 12
Tsukasa Iwabuchi (Tohoku Univ.)
- 59 Shozo Ogino (Tohoku Univ.) On the quasi-neutral limit of the compressible Navier–Stokes–Poisson equations in the scaling critical spaces 12
- 60 Itsuko Hashimoto Existence of radially symmetric stationary solutions for viscous and Heat-conductive ideal Gas 12
(Univ. of Osaka/Osaka Metro. Univ.)
Akitaka Matsumura (Osaka Univ.*)
- 61 Masaya Kageura (Kobe Univ.) Stability of the composite wave for the scalar viscous conservation law 12
Yoshihiro Ueda (Kobe Univ.)
- 62 Yucong Huang (Sci. Tokyo) Asymptotic stability of the spherically symmetric stationary solution to outflow problem for compressible viscous fluid 12
Shinya Nishibata (Sci. Tokyo)
- 63 Yucong Huang (Sci. Tokyo) Asymptotic stability of the stationary state for out-flowing viscous gas under non-spherically symmetric initial perturbations 12
Shinya Nishibata (Sci. Tokyo)
- 64 Shunsuke Fujita (Waseda Univ.) Global existence and long-time behavior of solutions to the stochastic gCLMG equation 12
Reika Fukuizumi (Waseda Univ.)
Takashi Sakajo (Kyoto Univ.)

- 65 Tsukasa Iwabuchi (Tohoku Univ.) Local solutions for the inviscid SQG in a bounded domain 12
- 66 Mitsuo Higaki (Kobe Univ.) Lagrangian controllability in perforated domains 10
Jiajiang Liao (Beihang Univ.)
Franck Sueur (Univ. of Luxembourg)

14:15–16:45

- 67 Tsuyoshi Yoneda (Hitotsubashi Univ.) On the locality of vortex breakdown dynamics based on the three-dimensional incompressible Euler equations 12
- 68 Motofumi Aoki (Kyoto Univ.) On energy conservation law for incompressible Euler equations in bounded domains 12
Tsukasa Iwabuchi (Tohoku Univ.)
- 69 Mikihiro Fujii (Nagoya City Univ.) Analyticity in space and time for global solutions to the anisotropic Navier–Stokes equations 12
Yang Li (Anhui Univ.)
- 70 Mikihiro Fujii (Nagoya City Univ.) Asymptotic instability for the forced Navier–Stokes equations 12
Hiroyuki Tsurumi (Tokushima Univ.)
- 71 Kei Noda (Kyoto Univ.) Periodic solutions of the 3D MHD equations in bounded domains with arbitrary geometry 12
Hideo Kozono (Waseda Univ./Tohoku Univ.)
Senjo Shimizu (Kyoto Univ.)
- 72 Kazuyuki Tsuda Time periodic problem of the Navier–Stokes equations in an exterior domain with periodically moving boundary 12
(Kyushu Sangyo Univ.)
Reinhard Farwig (TU Darmstadt)
- 73 Miho Murata (Shizuoka Univ.) Global solvability of the Q-tensor model for nematic liquid crystals in the half-space 10
Daniele Barbera (Politecnico di Torino)
Yoshihiro Shibata (Waseda Univ.*)
- 74 Hirokazu Saito On the dispersive effect of internal gravity waves for the two-phase Stokes semigroup 12
(Univ. of Electro-Comm.)
Xin Zhang (Tongji Univ.)
- 75 Takahiro Okabe (Yokohama Nat. Univ.) Domain dependence of the Helmholtz–Weyl decomposition on time dependent domains 12
Erika Ushikoshi (Yokohama Nat. Univ.)

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

- Tatsu-Hiko Miura (Hirosaki Univ.) Difference estimate for weak solutions to the Navier–Stokes equations in a thin spherical shell and on the unit sphere

Real Analysis

March 25th (Wed) Conference Room V

9:30–11:45

- 1 Soichi Ikeda (Kochi Univ. of Tech.) On certain composite functional equations associated with the Dirichlet function 15

2	Toshiharu Kawasaki (Nat. Inst. of Tech., Kisarazu Coll.)	Some properties of the extended integral, IV	15
3	Jun Kawabe (Shinshu Univ.)	Characterization of the Choquet, Shilkret, and Sugeno integrals as integral functionals	15
4	Aoi Honda (Kyushu Inst. of Tech.) Ryoji Fukuda (Oita Univ.) Yoshiaki Okazaki (Kyushu Inst. of Tech.*)	Uniform structures in Sugeno-type $\mathcal{L}_1(Su)$ spaces	15
5	Yukino Tomizawa (Niigata Inst. of Tech.)	The triangle inequality and geodesic convex quadrilaterals in complete Busemann spaces	15
6	Sachiko Atsushiba (Tokyo Woman's Christian Univ.)	Approximation of fixed points of some generalized nonexpansive map- pings	15
7	Shunya Hashimoto (Kyoto Univ.) Misako Kikkawa (Saitama Univ.) Shuji Machihara (Saitama Univ.) Aqib Saghir (Saitama Univ.)	The weakest condition for a Kannan-type contraction mapping on a complete metric space	15
14:15–15:30			
8	Takeshi Iida (Fukushima Nat. Coll. of Tech.)	Compostion of the Orlicz fractional maximal operators	15
9	Katsuo Matsuoka (Toho Univ.)	New “weak” estimates of some sublinear operators on Herz spaces with variable exponent $\dot{K}_{q(\cdot)}^{\alpha,p}(\mathbb{R}^n)$	15
10	Naoya Hatano (Univ. of Osaka)	Weighted generalization of the Poincaré–Sobolev inequality	15
11	Yoshihiro Sawano (Chuo Univ.) Lenny Neyt (Univ. of Vienna)	Moment-wise decomposition factorization property and ultradifferential operators	15

15:45–16:45 Talk Invited by Real Analysis Section

Ryoji Fukuda (Oita Univ.) Möbius transform and related developments

March 26th (Thu) Conference Room V

9:00–12:00

12	Takeshi Fukao (Ryukoku Univ.)	Asymptotic analysis of transmission problems with parameter-dependent Robin conditions	15
13	Osuke Shibata (Tokyo Univ. of Sci.) Tomomi Yokota (Tokyo Univ. of Sci.)	Global weak solvability of degenerate chemotaxis systems with threshold density	15
14	Daisuke Kubota (Chiba Univ.) Daiki Mizuno (Chiba Univ.) Naotaka Ukai (Chiba Univ.) Ken Shirakawa (Chiba Univ.)	Large-time behavior for inhomogeneous pseudo-parabolic total variation flows with time-dependent coefficients	15
15	Hana Kakiuchi (Japan Women's Univ.) Toyohiko Aiki (Japan Women's Univ.)	On behavior of free boundaries to two-phase Stefan problems with time dependent latent heat term	15
16	Yoshiho Akagawa (Kyoto Univ. of Edu.) Kazunori Matsui (Tokyo Univ. of Marine Sci. and Tech.)	On the well-posedness of nonlinear strain kinematic hardening law models	15

- 17 Chiharu Kosugi (Yamaguchi Univ.) A class of energy conservation systems representing stretching and shrinking motions of the elastic closed curve with the compressible stress function 15
- 18 Kota Kumazaki (Kyoto Univ. of Edu.) Construction of a strong solution to a system consisting of partial differential equations and free boundary problems 15
- 19 Naotaka Ukai (Chiba Univ.) A parabolic energy gradient system with variable dependent coefficients 15
Daiki Mizuno (Chiba Univ.)
Ken Shirakawa (Chiba Univ.)
Harbir Antil (George Mason Univ.)
- 20 Motoharu Hyodo (Niigata Univ.) Uniqueness and existence of entropy solutions to the Cauchy problem for general balance laws 15
Takanori Ebata (Niigata Univ.)
Hiroki Ohwa (Niigata Univ.)
- 21 Takanori Ebata (Niigata Univ.) Well-posedness of entropy solutions to the Cauchy problem with continuous flux functions 15
Sho Watabe (Niigata Univ.)
Hiroki Ohwa (Niigata Univ.)
- 22 Sho Watabe (Niigata Univ.) L^1 contractive solutions for conservation laws whose flux functions are of locally bounded variation 15
Takahiro Kikuchi (Niigata Univ.)
Hiroki Ohwa (Niigata Univ.)
- 14:15–16:40**
- 23 Tobias Black (Paderborn Univ.) Global solvability and asymptotic behavior in a doubly degenerate chemotaxis-consumption system 15
Shohei Kohatsu (Tokyo Univ. of Sci.)
Duan Wu (Paderborn Univ.)
- 24 Yutaro Chiyo (Tokyo Univ. of Sci.) Boundedness of radial solutions to a quasilinear parabolic-elliptic-elliptic attraction-repulsion chemotaxis system with flux limitation ... 15
Kazuki Hasegawa (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
- 25 Yoshihiro Sawano (Chuo Univ.)^b Maximal regularity in homogeneous Besov–Morrey spaces and applications to the Keller–Segel system 15
Toru Nogayama (Tokyo Univ. of Sci.)
- 26 Shunsuke Kurima (Tokyo Univ. of Sci.) A general nonisothermal and conserved phase field system with inertial term 15
- 27 Yoshihito Nakajima (Tohoku Univ.) Solvability of time-fractional abstract evolution equations involving time-dependent m -accretive operators and its applications 15
- 28 Shun Uchida (Oita Univ.)^b Doubly nonlinear parabolic equation with perturbation term 15
- 29 Akio Ito Quasi-variational evolution inclusions on real Hilbert spaces with conservative quantities 15
- 30 Ken Shirakawa (Chiba Univ.) 1D optimal control problem with state and control constraints motivated by grain boundary motion 15
Hiroshi Watanabe (Oita Univ.)
J. Salvador Moll (Univ. Valencia)
- 31 Daiki Mizuno (Chiba Univ.) H^2 -regularity of solutions to anisotropic singular diffusion equation under periodic boundary condition 15
Ken Shirakawa (Chiba Univ.)

16:50–17:50 Talk Invited by Real Analysis Section

- Takahito Kashiwabara (Univ. of Tokyo) H^2 -regularity for variational inequalities of Navier–Stokes type

Functional Analysis

March 23rd (Mon) Conference Room VII

9:30–11:45

- 1 Shuji Watanabe (Sanjo City Univ.) The first-order phase transition and the entropy gap in the BCS model of superconductivity with a uniform external magnetic field 15
- 2 Shosuke Omori (Hosei Univ.) Rigged Hilbert space formulation for a quasi-Hermitian operator in composite system 15
- 3 Makoto Nakamura (Univ. of Osaka) Nonexistence of global weak solutions of Klein–Gordon equations with Takuma Yoshizumi (Univ. of Osaka) gauge variant semilinear terms in FLRW spacetimes 10
- 4 Makoto Nakamura (Univ. of Osaka) On the asymptotic behavior of the semilinear Schrödinger equation in Eiichi Sugimoto (Univ. of Osaka) FLRW spacetimes in one spatial dimension 10
- 5 Yukihide Tadano (Univ. of Hyogo) Dispersive estimates for the discrete Schrödinger equation on a honey- Changhun Yang (Chunbuk Nat. Univ.) comb lattice 15
Younghun Hong (Chung-Ang Univ.)
- 6 Mitsuteru Kadowaki On scattering for three dimensional Schrödinger operators with absorb- (Univ. of Shiga Pref.) ing potentials 15
- 7 Itaru Sasaki (Shinshu Univ.) Holomorphy of ground states for the translation invariant Pauli–Fierz Yasumichi Matsuzawa (Shinshu Univ.) model in the dipole approximation 15
Shinnosuke Izumi (Shinshu Univ.)
Kouta Imura
(Nagano Pref. Fujimi High School)
- 8 Yuki Tsujimoto (Kyushu Univ.) The evaluation of the spatial decay of the ground state of the Pauli– Fumio Hiroshima (Kyushu Univ.) Fierz model from below. 15
- 9 Masao Hirokawa (Kyushu Univ.) Asymptotics for anisotropic Rabi models 15
Fumio Hiroshima (Kyushu Univ.)
Dong Yun Lee (Kyushu Univ.)

14:15–15:15

- 10 Wataru Ichinose (Shinshu Univ.) A rigorous mathematical formulation of time-continuous quantum mea- measurement based on Feynman’s and von Neumann’s postulates 15
- 11 Kenta Higuchi (Gifu Univ.) Asymptotic analysis on the resonant tunneling effect for quantum walks 15
- 12 Hisashi Morioka (Ehime Univ.) Resonant scattering for tunable quantum walks on graphs with tails 15
Kenta Higuchi (Gifu Univ.)
Ryuta Ishikawa (ABeam Systems Ltd.)
Etsuo Segawa (Yokohama Nat. Univ.)
Eijirou Yoshimura (Ehime Univ.)
- 13 Toshimitsu Takaesu (Gunma Univ.) On the binding condition of a quantum field model by the decay of particle’s potential 15

15:30–16:30 Talk Invited by Functional Analysis Section

- Daichi Komori (Kindai Univ.) An application of Čech–Dolbeault cohomology to the symbol theory of pseudodifferential operators

March 24th (Tue) Conference Room VII

9:45–10:30

- 14 Yasufumi Hashimoto (Univ. of Ryukyus) Full-trace subgroups of congruence subgroups $\Gamma_0(2), \Gamma(2)$ 15
- 15 Ryosuke Nakahama (NTT Inst. for Funda. Math.) On spectral zeta functions of one-, two-photon quantum Rabi models and non-commutative harmonic oscillators 15
- 16 Toshihisa Kubo (Ryukoku Univ.) Víctor Pérez-Valdés (Ryukoku Univ.) The homomorphisms between Verma modules for $\mathfrak{sl}(3, \mathbb{C})$ 15

10:45–11:45 Talk Invited by Functional Analysis Section

- Yohei Ito (Aoyama Gakuin Univ.)^b Regular and irregular Riemann–Hilbert correspondences for \mathcal{D} -modules

March 25th (Wed) Conference Room VII

9:30–11:25

- 17 Daisuke Hirota (Nat. Inst. of Tech., Tsukuba Coll.) On surjective isometries on the unit sphere of direct sums of Banach spaces and Tingley’s problem 15
- 18 Nikita Evseev (Okinawa Inst. of Sci. and Tech. Grad. Univ.) Weak weak* time derivatives 15
- Malte Kampschulte (Charles Univ.)
Alexander Menovschikov (HSE Univ.)
- 19 Yusuke Isono (Kyoto Univ.) Cocycle perturbations and ergodicity for actions on type III factors 15
- 20 Masaru Nagisa (Chiba Univ.* / Ritsumeikan Univ.) Yasuo Watatani (Kyushu Univ.*) Law of large numbers for non-linear traces of the Choquet type on finite factors 15
- 21 Takehiko Mori (Chiba Univ.) Dynamical systems with bounded condition and C^* -algebras 15
- 22 Nanami Hashimoto (Keio Univ.) Equivalence of categories of KK-theory or E-theory for C^* -algebras over topological spaces by reflection functors 15
- 23 Narutaka Ozawa (Kyoto Univ.) Proximality and selflessness for group C^* -algebras 15

14:15–15:15

- 24 Hiroyuki Osaka (Ritsumeikan Univ.) Hiroki Shudo (Ritsumeikan Univ.) Generalized Hellinger divergences generated by monotone functions .. 15
- 25 Yuki Seo (Osaka Kyoiku Univ.) Rescaled \natural_α -Rényi divergences of all real orders 15
- 26 Taro Sogabe (Kyoto Univ.)^b Kengo Matsumoto (Joetsu Univ. of Edu.) A presentation of certain Cuntz–Pimsner algebra and unique ergodicity of certain ergodic automorphism 15
- 27 Ryoya Arimoto (Kyoto Univ.) Taro Sogabe (Kumamoto Univ.) Topological full groups arising from Cuntz and Cuntz–Toeplitz algebras and their crossed products 15

15:30–16:30 Talk Invited by Functional Analysis Section

Masatoshi Ito (Maebashi Inst. of Tech.) Various weighted means and their relations

Statistics and Probability

March 23rd (Mon) Conference Room VIII

9:30–11:50

- 1 Zijian Xu (Fukuoka Univ.) Monge solutions and uniqueness in multi-marginal optimal transport with hierarchical jumps 15
- 2 Takuya Nakagawa (Ritsumeikan Univ.)^b $L^{\alpha-1}$ distance between two one-dimensional stochastic differential equations with drift terms driven by a symmetric α -stable process 15
- 3 Kaneharu Tsuchida (Nat. Defense Acad. of Japan) Smooth measures and positive continuous additive functionals attached to a compact nest 15
Takumu Ooi (Tokyo Univ. of Sci.)
Toshihiro Uemura (Kansai Univ.)
- 4 Kohki Iba (Univ. of Osaka) Conditioning and penalization for Lévy processes 15
- 5 Arturo Kohatsu-Higa (Ritsumeikan Univ.) The derivative of expectations with respect to the initial value and integration by parts formulas for affine processes 15
Yuma Tamura (Ritsumeikan Univ.)
- 6 Ryoichiro Noda (Kyoto Univ.) Convergence of space-time occupation measures of Markov processes 15
- 7 Yuji Hamana (Univ. of Tsukuba) Joint distribution of the hitting time to a square-root boundary and the hitting site for Brownian motion 10
- 8 Shota Osada (Kagoshima Univ.) On the ergodicity of unlabeled dynamics associated with random point fields 15
- 9 Nariyuki Minami (Keio Univ.*^a) On spectral multiplicity of random one-dimensional Schrödinger operators 15

14:15–15:15 Award Lecture for the 2025 MSJ Analysis Prize

David Croydon (Kyoto Univ.) Cover times of random walks on some special trees

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

Kei Noba (Univ. of Osaka) On the scale functions of stochastic processes with no positive jumps

March 24th (Tue) Conference Room VIII

9:30–11:50

- 10 Ryosuke Sato (Hokkaido Univ.) Conservation operator processes from representation theory and their CLT 15
- 11 Noriyoshi Sakuma (Univ. of Osaka) On generalized Meixner-type free gamma distributions 2 —finite free probability— 10
Yuki Ueda (Hokkaido Univ. of Edu.)

12	Ryo Inayoshi (Meijo Univ.)	Operator information quantities of semigroups associated with functions of the number operator	15
13	Yushi Hamaguchi (Kyoto Univ.)	Markovian lifting and ergodicity for stochastic Volterra equations	15
14	Hirotsu Nagoji (Hiroshima Univ.) Hiroshi Kawabi (Keio Univ.)	Strong uniqueness of Dirichlet operators related to stochastic quantization for the $\exp(\Phi)_2$ -model	15
15	Soma Nishino (Tokyo Metro. Univ.)	A central limit theorem for the stochastic cable equation	15
16	Mikio Hirokane (Univ. of Osaka) Masaaki Fukasawa (Univ. of Osaka) Kostas Kardaras (London School of Econ.)	Error distributions of Euler–Maruyama and local linearization schemes for SDEs with additive noise	15
17	Shigeyoshi Ogawa (Ritsumeikan Univ.)	On the regular solutions of noncausal SDE	15
18	Rikuki Okamoto (Ritsumeikan Univ.) Jiro Akahori (Ritsumeikan Univ.)	Properties of the initial noise-adjusted SIML high-frequency statistical estimator	15

12:00–12:30 Research Section Assembly

March 25th (Wed) Conference Room VIII

10:00–12:00

19	Yuichi Goto (Kyushu Univ.) Abdelhakim Aknouche (Qassim Univ.) Christian Francq (JST CREST/Univ. of Lille)	Mixed difference integer-valued GARCH model for \mathbb{Z} -valued time series	15
20	Kou Fujimori (Shinshu Univ.) Hiroshi Shiraishi (Keio Univ.) Junichi Hirukawa (Nanzan Univ.) Konstantinos Fokianos (Univ. of Cyprus)	Lasso-type estimators for multivariate integer-valued autoregressive models with applications to inference for Hawkes processes	15
21	Xiaoqiang Zeng (Guangdong Univ. of Edu.) Yoshihide Kakizawa (Hokkaido Univ.)	Note on an ADCINAR(p) process	15
22	Takato Hashino (Kyushu Univ.) Koji Tsukuda (Kyushu Univ.)	The Shannon entropy estimation via the Pitman–Yor process	15
23	Teruo Tanaka (Hiroshima City Univ.)	Risk sensitive optimal stopping problems for discrete time multiparameter Markov processes	15
24	Rinka Sagawa (Waseda Univ.) Yan Liu (Waseda Univ.) Valentin Patilea (ENSAI)	Discriminant analysis for dependent noisy curves	15
25	Shi Chen (Waseda Univ.) Yan Liu (Waseda Univ.)	Portmanteau test of copula time series	15
26	Junichi Hirukawa (Nanzan Univ.) Masanobu Taniguchi (Waseda Univ.) Marc Hallin (Univ. Libre de Bruxelles)	The second order generalization of Hájek–Le Cam asymptotic minimax theorem	15

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

Michiko Okudo (Chiba Univ.) Foundations of information geometry and its applications to Bayesian statistics

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

Hideatsu Tsukahara (Seijo Univ.) Statistics of risk measures

March 26th (Thu) Conference Room VIII

10:00–11:40

- 27 Tetsuya Sato (Tokyo Univ. of Sci.) Error bounds for high-dimensional Edgeworth expansion for sphericity test with two-step monotone missing data 15
 Ayaka Yagi (Tokyo Univ. of Sci.)
 Takashi Seo (Tokyo Univ. of Sci.)
- 28 Shuhei Mano (Inst. of Stat. Math.) Direct sampling from conditional distributions by sequential maximum likelihood estimations 15
- 29 Tetsuya Umino (Univ. of Tsukuba) Automatic sparse estimation of high dimensional block diagonal covariance structures 15
 Kazuyoshi Yata (Univ. of Tsukuba)
 Makoto Aoshima (Univ. of Tsukuba)
- 30 Shinpei Imori (Hiroshima Univ.) Model selection in linear regression models with group structure 15
- 31 Kengo Fujisawa Bivariate ordinal logit model for symmetric ordinal categorical variables 15
 (Tokyo Univ. of Sci., Yamaguchi)
- 32 Riku Hosonuma (Tokyo Univ. of Sci.) Tests for the two-sample problem of sub-mean vectors with two-step monotone missing data 15
 Tamae Kawasaki
 (Aoyama Gakuin Univ.)
 Takashi Seo (Tokyo Univ. of Sci.)
- 33 Yuki Hayashi (Nanzan Univ.) Parameter estimation and hypothesis testing for the generalized t-distribution 10
 Takayuki Shiohama (Nanzan Univ.)

Applied Mathematics

March 23rd (Mon) Conference Room IX

9:30–11:35

- 1 Tomohiro Kamiyoshi On left production matrices of generalized Stirling numbers 15
 (Matsue Coll. of Tech.)
 Makoto Nagura
 (Osaka Electro-Comm. Univ.)
 Shin-ichi Otani (Kanto Gakuin Univ.)
- 2 Hirotake Kurihara (Yamaguchi Univ.) Imprimitve association schemes and elimination theory 15
Akihiro Higashitani (Univ. of Osaka)
- 3 Kazunori Matsuda The minimum number of edges of connected simple graphs G with $\text{ind-match}(G) = p$, $\text{min-match}(G) = q$ and $\text{match}(G) = r$ 15
 (Kitami Inst. of Tech.)

4	<u>Hojin Chu</u> (KIAS) <u>Shinya Fujita</u> (Yokohama City Univ.) Boram Park (Seoul National Univ.) Homoon Ryu (Ajou Univ.)	Connectivity keeping trees in triangle-free graphs 10
5	Diogo Kendy Matsumoto (Teikyo Univ. of Sci.)	The structure of 3-self-centered unique eccentric point graphs of girth ≥ 4 15
6	<u>Masaki Kashima</u> (Keio Univ.) Riste Škrekovski (Ljubljana Univ.) Rongxing Xu (Zhejiang Normal Univ.)	Degeneracy and proper conflict-free degree-choosability of graphs 15
7	<u>Atsuhiko Nakamoto</u> (Yokohama Nat. Univ.) Naoki Matsumoto (Univ. of Ryukyus) Kyosuke Wakayama (Yokohama Nat. Univ.)	Kempe equivalence of 5-colorings in 3-chromatic triangulations on the projective plane 15
14:15–16:25		
8	<u>Hiroshi Goda</u> (Tokyo Univ. of Agri. and Tech.) Takayuki Morifuji (Keio Univ.)	Some expressions of graph zetas and the twisted Alexander polynomials, and the knot volume 15
9	<u>Iwao Sato</u> (Oyama Nat. Coll. of Tech.) Ayaka Ishikawa (Muroran Inst. of Tech.) Takashi Komatsu (Univ. of Yamanashi) Norio Konno (Ritsumeikan Univ./Yokohama Nat. Univ. *) Hideo Mitsunashi (Hosei Univ.) Hideaki Morita (Muroran Inst. of Tech.)	The weighted complexities of abelian coverings of a graph 15
10	<u>Iwao Sato</u> (Oyama Nat. Coll. of Tech.) Akahori Jiro (Ritsumeikan Univ.) Norio Konno (Ritsumeikan Univ./Yokohama Nat. Univ. *) Shohei Koyama (Ritsumeikan Univ.) Etsuo Segawa (Yokohama Nat. Univ.)	The edge version of Konno–Sato theorem 15
11	<u>Shohei Koyama</u> (Ritsumeikan Univ.) Jiro Akahori (Ritsumeikan Univ.) Norio Konno (Ritsumeikan Univ./Yokohama Nat. Univ. *) Iwao Sato (Oyama Nat. Coll. of Tech.)	Bootstrap quantum walks 15
12	<u>Shuhei Mano</u> (Inst. of Stat. Math.) Robert Griffiths (Monash Univ.)	Symmetric quantum walks on Hamming graphs and their limit distributions 15
13	<u>Hiroto Sekido</u> (Yokohama Nat. Univ.) Etsuo Segawa (Yokohama Nat. Univ.)	Effects of magnetic flux on the periodicity of quantum graph walks 15
14	Kenta Higuchi (Gifu Univ.) Ryuta Ishikawa (Ehime Univ.) Hisashi Morioka (Ehime Univ.) <u>Etsuo Segawa</u> (Yokohama Nat. Univ.)	Sticky quantum walk model 15

16:40–17:40 Talk Invited by Applied Mathematics Section

Yusuke Ide (Nihon Univ.) Eigenspaces related to quantum walks on graphs

March 24th (Tue) Conference Room IX

9:15–11:40

- 15 Xiao-Nan Lu (Gifu Univ.) Completely uniform nested pairings of Carmichael’s Steiner quadruple systems on projective lines 15
- 16 Kosuke Suzuki (Yamagata Univ.) Exact ℓ^∞ -separation radius of the two-dimensional Sobol’ sequence ... 15
- 17 Shuhei Tsujie (Hokkaido Univ. of Edu.) The correspondence of maximal Arrow’s single-peaked domains and
Hung Manh Tran (Phenikaa Univ.) regular vines 15
Tan Nhat Tran (Binghamton Univ.)
- 18 Takuya Saito (Hokkaido Univ.) Convolution formulas for invariants of polymatroid sums and other weighted posets 15
- 19 Chie Nara (Meiji Univ.) Continuous flattening of convex polyhedral linkages and their reversing
Erik D. Demaine (MIT) by Menger’s theorem 15
Martin L. Demaine (MIT)
Markus Hecher (MIT)
Rebecca Lin (MIT)
Victor Luo (MIT)
- 20 Masato Konoike (Univ. of Osaka) On the magic positivity of Ehrhart polynomials of dilated polytopes 15
- 21 Aki Mori (Setsunan Univ.) Two-dimensional faces of order and chain polytopes 15
- 22 Akihiro Higashitani (Univ. of Osaka) On the equivariant γ -nonnegativity of order polytopes of graded posets 15

March 25th (Wed) Conference Room IX

9:25–12:00

- 23 Yusuke Asai (JIHS) Development of virus dynamics model describing cell-to-cell transmission 15
Shingo Iwami (Nagoya Univ.)
Yoshihisa Morita (Ryukoku Univ.*)
- 24 Yusuke Asai (JIHS) Existence of traveling waves in a viral infection model with cell-to-cell
Shingo Iwami (Nagoya Univ.) transmission 15
Yoshihisa Morita (Ryukoku Univ.*)
- 25 Toshikazu Kuniya (Kobe Univ.) Hopf-bifurcation in a time-delayed multi-group SIR epidemic model for population behavior change 15
- 26 Sungrim Seirin Lee Pattern formation in skin diseases 15
(Kyoto Univ./Kyoto Univ.)
- 27 Natsume Motohashi (Hokkaido Univ.) On the existence of one-dimensional standing pulse solutions for a
Hideo Ikeda (Univ. of Toyama) self-propelled motion model 15
Masaharu Nagayama (Hokkaido Univ.)
- 28 Peize Yu (Hokkaido Univ.) Optimizing nutrient-consuming motility of bacteria with mathematical
Sohei Tasaki (Hokkaido Univ.) model 15

- 29 Madoka Nakayama (Sci. Tokyo) Cell population migration cycle and response to environmental pH in
Izumi Takagi (Tohoku Univ.) *Bacillus subtilis* 15
Jun-ichi Wakita (Chuo Univ.)
Wataru Shoji (Tohoku Univ.)
Sohei Tasaki (Hokkaido Univ.)
- 30 Keiichi Ueda (Univ. of Toyama) Pulse dynamics under internal and external environmental changes ... 15
Yasumasa Nishiura
 (Hokkaido Univ./Chubu Univ.)
- 31 Hajime Koba (Univ. of Osaka) Mathematical modeling of a soap bubble in air 15

14:15–14:40 Presentation Ceremony for the 2025 Applied Mathematics Prize

14:50–16:30

- 32 Kazunori Matsui A numerical method for an elastoplastic model with linear kinematic
 (Tokyo Univ. of Marine Sci. and Tech.) hardening 15
Yoshiho Akagawa (Kyoto Univ. of Edu.)
- 33 Masato Kimura (Kanazawa Univ.) Mass conservation and gelation analysis of the Smoluchowski coagula-
Hisanori Miyata (Kanazawa Univ.) tion equation via the generalized moment method 15
- 34 Shinya Uchiumi (Hokkaido Univ.) Analysis of Lagrange–Galerkin scheme having boundary quadrature
 points 15
- 35 Haruka Nakamura (Univ. of Tokyo) On a monotone scheme for Hamilton–Jacobi–Bellman equations 15
Norikazu Saito (Univ. of Tokyo)
- 36 Takuya Tsuchiya (Meiji Gakuin Univ.) Structure-preserving numerical calculation of Klein–Gordon–Proca sys-
Makoto Nakamura (Univ. of Osaka) tem 15
- 37 Tsuyoshi Yoneda (Hitotsubashi Univ.) Mathematical structure of a novel Reservoir-based gradient descent
 method and its high predictive accuracy in machine learning implemen-
 tation 15

16:45–17:45 Talk Invited by Applied Mathematics Section

- Tomoki Uda (Univ. of Toyama) Advances in anisotropy-aware topological data analysis

March 26th (Thu) Conference Room IX

9:25–12:00

- 38 Toshiyuki Nakayama (Shunan Univ.) Probabilistic foundations for topological change detection in high-
 dimensional data analysis 15
- 39 Yoshitaka Watanabe (Kyushu Univ.) Stability analysis of Kolmogorov flow by an eigenvalue excluding method
Shuting Cai (Fujian Jiangxia Univ.) 15
- 40 Takaaki Nishida (Kyoto Univ.*) Thermohaline convection in the horizontal layer with non-uniform heat
Fujiwara Hiroshi (Kyoto Univ.) supply 15
Chun-Hsiung Hsia (Nat. Taiwan Univ.)
- 41 Masakazu Akiyama (Univ. of Toyama) About a crystal structure simulator 15
Takada Yu
Haruhiko Morito (Tohoku Univ.)
Yukari Katsura
 (Nat. Inst. for Materials Sci.)

42	Kaname Matsue (Kyushu Univ./Kyushu Univ.)	Bifurcation of blow-up solutions: correspondence between dynamics at infinity and structures stemming from asymptotic expansions	15
43	Hironari Miyoshi (Saitama Univ.)	Stochastic particle processes constituting traveling wave solutions of the heat equation	15
44	Kazuyuki Yagasaki (Kyoto Univ.*)	Global linearization of dynamical systems by generalized eigenfunctions of the Koopman operators	15
45	Kazuyuki Yagasaki (Kyoto Univ.*)	Feedback control of twisted solutions in the Kuramoto model on nearest neighbor graphs	15
46	Kei Nishi (Kyoto Sangyo Univ.)	Dynamics of traveling pulses in reaction-diffusion systems subject to local external perturbation	15
14:15–15:15			
47	Tomoharu Suda (Tokyo Univ. of Sci.)	A categorical approach to reconstruction of dynamics	15
48	Isamu Ohnishi (Hiroshima Univ.)	Emergence of coherent state superpositions of quantum cat states in driven-dissipative Kerr cavities: Multi-mode steady-state analysis of the quantized Lugiato–Lefever equation	15
49	Isamu Ohnishi (Hiroshima Univ.)	Lie algebra frameworks to reflexive Banach spaces: Decoupling and normal forms for quadratic nonlinear systems in infinite dimensions	15
50	Isamu Ohnishi (Hiroshima Univ.)	Quantum many-body hysteresis described by Dirac–KG–Yukawa quantum field and its application	15
15:30–16:30 Talk Invited by Applied Mathematics Section			
	Asuka Takatsu (Univ. of Tokyo) ^b	How do we choose a geometry on the space of probability measures?	

Topology

March 23rd (Mon) Conference Room III

9:30–11:15

1	Tomoya Yoshikawa (Okayama Univ.)	Orientation double covers of non-orientable Lefschetz fibrations	15
2	Noriyuki Hamada (Kyushu Univ.) R. İnanç Baykur (UMass Amherst)	Lefschetz fibrations with arbitrary signature	15
3	Noriyuki Hamada (Kyushu Univ.) R. İnanç Baykur (UMass Amherst)	Exotic 4-manifolds with signature zero	15
4	Tsukasa Isoshima (Keio Univ.) Reo Yabuguchi (Okayama Univ.)	Trisections and Lefschetz fibrations with $(-n)$ -sections	15
5	Yuichi Yamada (Univ. of Electro-Comm.) Motoo Tange (Univ. of Tsukuba)	Seifert manifolds in 4-manifolds constructed by pairs of surgeries along torus knots	10
6	Motoo Tange (Univ. of Tsukuba)	Cork equivalences	10

14:15–15:15

- 7 Tatsumasa Suzuki (Meiji Univ.) The pretzel knot $P(4, -3, 5)$ is not squeezed 15
 Nobuo Iida
 (Tokyo Woman's Christian Univ.)
- 8 Kazuhiro Ichihara (Nihon Univ.) Euclidean lengths and the Culler–Shalen norms of slopes 10
- 9 Ken'ichi Yoshida (Hiroshima Univ.) On hyperbolicity of weaves 15

15:30–16:30 Talk Invited by Topology Section

- Yuya Murakami (RIKEN) Quantum modularity for quantum invariants

March 24th (Tue) Conference Room III

9:30–11:00

- 10 Yoshihito Ogasawara Topology as Language of epistemology 10
 (Shibaura Inst. of Tech./Miyoshigokinkogyo Co. Ltd.)
- 11 Yuto Nakajima (Doshisha Univ.) On the topology of the limit set of non-autonomous IFS 15
Takayuki Watanabe (Chubu Univ.)
- 12 Yukinobu Yajima (Kanagawa Univ.) Perfect pre-images of aD -spaces 15
 Yasushi Hirata (Kanagawa Univ.)
- 13 Shuntaro Tomizawa (Univ. of Tokyo) Heterodimensional cycles derived from homoclinic tangencies via Hopf
 bifurcations 15
- 14 Jun O'Hara (Chiba Univ.) Identification of generic finite metric spaces by q -spectra 15

March 25th (Wed) Conference Room III

9:30–11:15

- 15 Masaki Taho (Univ. of Tokyo) Infinitely many tangent functors on diffeological spaces 15
- 16 Kohei Tanaka (Shinshu Univ.) The fundamental category of a poset-stratified space 15
- 17 Ryo Horiuchi (Bukkyo Univ.) On the stratification of combinatorial spectra 15
- 18 Syunji Moriya (Univ. of Aizu) Embedding calculus and Vassiliev spectral sequence 15
- 19 Syunji Moriya (Univ. of Aizu) Sinha's spectral sequence for long knots in codimension one and non-
 formality of the little 2-disks operad 15

14:30–16:15

- 20 Naoki Kitazawa (Osaka Metro. Univ.) Construction of Morse–Bott functions on 3-dimensional compact and
 connected manifolds with prescribed level sets 15
- 21 Naoki Kitazawa (Osaka Metro. Univ.) On a classification of Morse functions on S^3 or connected sums of copies
 of $S^2 \times S^1$ and lens spaces 10
- 22 Naoki Kitazawa (Osaka Metro. Univ.) Real algebraic functions with prescribed Reeb graphs 10
- 23 Runa Shimada (Kobe Univ.) Geometric properties under deformations of singularities 15
- 24 So Yamagata (Fukuoka Univ.) Categorification of the characteristic polynomial of a matroid 10
 Takuya Saito (Hokkaido Univ.)

- 25 Emiko Yorisaki (Tokyo Metro. Univ.) The realization spaces of certain conic-line arrangements of degree 7
Shinzo Bannai (Okayama Univ. of Sci.) 15
Hiro-o Tokunaga (Tokyo Metro. Univ.)

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

- Florent Schaffhauser (Heidelberg Univ.) Moduli of vector bundles over real algebraic curves

March 26th (Thu) Conference Room III

9:30–11:00

- 26 Nariya Kawazumi (Univ. of Tokyo) A noncommutative Johnson lifting related to \mathbb{K} -framings and spin structures on surfaces 15
- 27 Aoi Wakuda (Univ. of Tokyo) Separability criteria of loops on orientable surfaces via the TWG bracket 15
- 28 Takuya Sakasai (Univ. of Tokyo) On the dihedral invariant Lie subalgebra of the derivation Lie algebra of the free associative algebra 10
- 29 Toyo Taniguchi (Univ. of Tokyo) Drinfeld associators and Kashiwara–Vergne associators in higher genera 15
- 30 Masatoshi Sato (Tokyo Denki Univ.) On the 2-loop part of the Johnson cokernel 15
Yusuke Kuno (Tsuda Coll.)

14:15–16:45

- 31 Shin Satoh (Kobe Univ.) Polynomial generalization of the $v_{2,1}$ - and $v_{2,2}$ -invariants for long virtual
Kodai Wada (Kobe Univ.) knots 10
- 32 Naoko Kamada (Nagoya City Univ.) Doubling of welded knots 10
Seiichi Kamada (Univ. of Osaka)
- 33 Akiko Shima (Tokai Univ.) Linear 4-charts with three crossings 15
Teruo Nagase (Tokai Univ.*)
- 34 Jumpei Yasuda (Osaka Metro. Univ.) On knot quandles of Suciu’s ribbon knots 10
- 35 Kokoro Tanaka (Tokyo Gakugei Univ.) On the monodromies of Suciu’s n -knots 10
Takuya Sakasai (Univ. of Tokyo)
- 36 Kengo Kawamura (Osaka Sangyo Univ.) On skein relations of a cocycle invariant for p -colored links 10
Atsushi Ishii (Univ. of Tsukuba)
Kanako Oshiro (Sophia Univ.)
- 37 Ayu Suzuki (Japan Women’s Univ.) On embedding of homogeneous quandles and its examples 15
- 38 Sam Nelson (Claremont McKenna Coll.) The forbidden quiver of a link 15
- 39 Sam Nelson (Claremont McKenna Coll.) Categorification of biquandle arrow weights using quivers 10
Migiwa Sakurai
(Shibaura Inst. of Tech.)
- 40 Masaki Ogawa (Tohoku Univ.) On Khovanov homology of link in $\mathbb{R}P^3$ and S^3 15
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Infinite Analysis

March 25th (Wed) Conference Room VI

10:30–11:45

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|---|---|---|----|
| 1 | Ryota Akagi (Nagoya Univ.) | Generalization of c -, g -vectors to real entries in cluster algebras and its finite type classification via Coxeter diagrams | 15 |
| 2 | Ryota Akagi (Nagoya Univ.) | Sign coherence and its structure of real c -vectors associated with cluster-cyclic matrices of rank 3 | 15 |
| 3 | Ayaka Murakami (Ochanomizu Univ.)
Kouich Takemura (Ochanomizu Univ.) | q -Heun equation and its q -integral transformation | 15 |
| 4 | Kanam Park (Toba Nat. Coll. of Maritime Tech.) | A q -middle convolution and the q -Painlevé equation of type $E_6^{(1)}$ | 15 |

14:15–15:45

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| 5 | Takahiko Nobukawa (Kogakkan Univ.) | A rank 3 linear q -difference equation with affine Weyl group symmetry of type $E_8^{(1)}$ | 15 |
| 6 | Taikei Fujii (Kobe Univ.)
Tatsushi Shimazaki (Kobe Univ.) | On the connection between Grothendieck polynomials and q -hypergeometric series | 15 |
| 7 | Yuichi Ueno (Kogakkan Univ.) | Quantization of higher order Painlevé systems | 15 |
| 8 | Ryo Okawa (Kyoto Univ.)
Jun'ichi Shiraishi (Univ. of Tokyo) | Whittaker functions on affine Laumon spaces | 15 |
| 9 | Alexander Stokes (Waseda Univ.) | Monodromy of monodromy surfaces | 15 |

16:00–17:00 Talk Invited by Infinite Analysis Special Session

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| Shunya Adachi (Utsunomiya Univ.) | On Katz theoretic integral transformations |
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March 26th (Thu) Conference Room VI

10:30–11:45

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| 10 | Nobutaka Nakazono (Tokyo Univ. of Agri. and Tech.) | Exact solutions to an autonomous dKdV equation via Painlevé-type ordinary difference equations | 15 |
| 11 | Genki Shibukawa (Kitami Inst. of Tech.)
Satoshi Tsuchimi (Kindai Univ.) | Little μ -function, the Rogers–Ramanujan continued fraction and Schur's q -Fibonacci numbers | 15 |
| 12 | Sota Miyazawa (Nat. Defense Acad. of Japan)
Taichiro Takagi (Nat. Defense Acad. of Japan) | A novel correspondence between paths for a crystal base of $U_q(\widehat{\mathfrak{sl}}_2)$ and Young diagrams | 15 |
| 13 | Masato Kobayashi (Kanagawa Univ.) | Decompositions of crystal graphs by skeleton RSK | 15 |

14:15–15:15 Talk Invited by Infinite Analysis Special Session

- | | |
|----------------------------|---|
| Shinsuke Iwao (Keio Univ.) | Solving the Bethe equations for periodic TASEP and proving completeness |
|----------------------------|---|

Information for Speakers

The Organizing Committee apologizes that it had to limit the duration of many talks due to scheduling constraints. Therefore, we ask speakers to strictly keep time. A first 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 must leave the stage immediately.

Talks with no symbol denote presentations using a projector. Talks with \flat marks denote presentations on a blackboard. The speakers with \star marks are professors emeriti. For joint presentations in the Regular Session, the underlined authors are the speakers. Please note that for the Mathematical Society of Japan (MSJ) Regular Session, only MSJ members are eligible to present.

Each conference room is equipped with a blackboard and a projector. HDMI cables are provided in the rooms, but please bring suitable accessories for your presentation. The time for connecting your PC to the projector is part of the assigned duration of your talk. Please check beforehand if your slides can be properly displayed in the conference room (e.g., before the session starts or during breaks). 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.

Cancellations

If you need to cancel your talk, please notify the meeting headquarters via the form below:

<https://www.mathsoc.jp/activity/meeting/tus26mar/cancel.html>

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Information for Participants

Smoking is prohibited in the entire facility, including the lecture halls.

No parking is available on campus, and private vehicles are not permitted. Please use public transportation. Tokyo University of Science is an eduroam member.

Dining Options: There are many dining options (restaurants and convenience stores) around the university (Kagurazaka area). The on-campus cafeterias are located on the 1st and 2nd floors of Building 8 and are scheduled to be open during the conference. If you wish to eat and drink at the venue, please use the designated break rooms.

Official Party

Date: March 24th (Tue) 18:00–20:00

Venue: Risoukai Club, 6F, PORTA KAGURAZAKA

Participants are asked to pay 6,000 JPY at the party.

Directions

2026 MSJ ANNUAL MEETING

Dates : March 23rd (Mon)–26th (Thu), 2026

Venue : Kagurazaka Campus, Tokyo University of Science
1–3 Kagurazaka, Shinjuku-ku, Tokyo 162-8601, Japan

Contact to : Faculty of Science, Tokyo University of Science
1–3 Kagurazaka, Shinjuku-ku, Tokyo 162-8601, Japan
tus26mar@mathsoc.jp

Web Site : <https://www.mathsoc.jp/en/meeting/tus26mar/>

Conference Rooms

	Place	Research Sections
Conference Room I	211, 1F, Building no. 2	Algebra, Featured Invited Talk
Conference Room II	212, 1F, Building no. 2	Functional Equations, Featured Invited Talk
Conference Room III	231, 3F, Building no. 2	Topology, Featured Invited Talk
Conference Room IV	241, 4F, Building no. 2	Geometry
Conference Room V	233, 3F, Building no. 2	Complex Analysis, Real Analysis
Conference Room VI	831, 3F, Building no. 8	Foundation of Mathematics and History of Mathematics, Infinite Analysis
Conference Room VII	832, 3F, Building no. 8	Functional Analysis
Conference Room VIII	621, 2F, Building no. 6	Statistics and Probability
Conference Room IX	622, 2F, Building no. 6	Applied Mathematics
Conference Room X	623, 2F, Building no. 6	Featured Invited Talks
Conference Room XI	624, 2F, Building no. 6	Featured Invited Talks
Plenary Talks	624, 2F, Building no. 6 (Livestream: 623, 2F, Building no. 6)	
Open Lectures for Citizens	624, 2F, Building no. 6	

Other Rooms

Membership Fee & Extended Abstracts	221, 2F, Building no. 2
Discussion Areas	833, 3F, Building no. 8
Book Display and Sale	222, 2F, Building no. 2
Executive Committee, MSJ President	223, 2F, Building no. 2
Official Party	Risoukai Club, 6F, PORTA KAGURAZAKA