

2020 The Mathematical Society of Japan

AUTUMN MEETING

Dates: September 22nd (Tue)–25th (Fri), 2020

Contact to: E-mail kumamoto20sept@mathsoc.jp

The Mathematical Society of Japan

22nd (Tue)		Algebra 9:40–12:00 15:30–16:30	Geometry 10:00–12:00	Complex Analysis 9:00–10:30 14:15–15:55	Functional Equations 9:30–11:30 14:15–16:15		Functional Analysis 10:00–11:45	Statistics and Probability 9:00–12:00	Applied Mathematics 9:50–11:45 14:15–15:30	Topology 10:00–12:00	Infinite Analysis 9:30–12:00 14:30–16:30
	Featured Invited Talks 13:00–14:00										
		Invited Talk 14:15–15:15	Invited Talk 16:00–17:00	Invited Talks 11:00–12:00 16:00–17:00	Invited Talk 16:30–17:30		Invited Talks 14:15–15:15 15:30–16:30	Invited Talks 14:20–15:20 15:40–16:40	Invited Talk 15:45–16:45	Invited Talk 14:15–15:15	
23rd (Wed)		Algebra 10:00–12:00 Invited Talk 13:00–14:00	Geometry 10:00–12:00	Complex Analysis 9:00–10:20 Invited Talk 11:00–12:00	Functional Equations 9:30–11:30 Invited Talk 13:00–14:00		Functional Analysis 10:30–11:45 Invited Talk 13:15–14:15	Statistics and Probability 9:00–11:15	Applied Mathematics 9:50–12:00	Topology 10:00–11:40 Invited Talk 13:15–14:15	Invited Talks 10:30–11:30 13:15–14:15
	MSJ Prizes Presentation (14:30–15:00)										
	Plenary Talks Autumn Prize Winner (15:15–16:15) Masayoshi Takeda (Kansai Univ.) (16:30–17:30)										
24th (Thu)	Found. of Math. & Hist. of Math. 9:30–10:35 14:20–16:10	Algebra 9:00–12:00	Geometry 9:45–12:00		Functional Equations 9:30–11:30 14:15–16:15	Real Analysis 10:00–11:55 14:15–14:45	Functional Analysis 10:00–12:00 14:15–15:10	Statistics and Probability 9:00–11:50	Applied Mathematics 9:00–12:00 14:15–16:30	Topology 10:00–11:55	
	Featured Invited Talks 13:00–14:00										
	Invited Talk 10:45–11:45	Invited Talks 14:50–15:50 16:00–17:00	Invited Talk 16:00–17:00		Invited Talk 16:30–17:30	Invited Talk 15:00–16:00	Invited Talk 15:20–16:20	Invited Talks 14:20–15:20 15:40–16:40	Invited Talk 16:45–17:45	Invited Talk 14:15–15:15	
25th (Fri)	Found. of Math. & Hist. of Math. 9:30–10:50	Algebra 9:50–12:00 14:15–16:15			Functional Equations 9:30–11:30 14:15–16:15	Real Analysis 9:45–12:00 14:15–15:15			Applied Mathematics 9:00–11:45 14:15–15:15		
	Featured Invited Talks 13:00–14:00										
	Invited Talk 11:00–12:00				Invited Talk 16:30–17:30	Invited Talk 15:30–16:30			Invited Talk 15:30–16:30		

Plenary Talks

September 23rd (Wed)

The 2020 MSJ Autumn Prize		
Autumn Prize Winner	(15:15–16:15)
Masayoshi Takeda (Kansai Univ.)	Dirichlet forms and symmetric Markov processes with tightness property	(16:30–17:30)

Featured Invited Talks

September 22nd (Tue)

Makoto Masumoto (Yamaguchi Univ.)	Continuations of Riemann surfaces	(13:00–14:00)
Ryoko Tomiyasu (Kyushu Univ.)	Lattice problems in mathematical crystallography	(13:00–14:00)

September 24th (Thu)

Yoshikazu Takada (Kumamoto Univ.*)	Selection of the best population	(13:00–14:00)
Nobuki Takayama (Kobe Univ.)	Hypergeometric systems of several variables and statistics ..	(13:00–14:00)

September 25th (Fri)

Osamu Hatori (Niigata Univ.*) ^b	Isometries on Banach algebras	(13:00–14:00)
Ryushi Goto (Osaka Univ.) ^b	On generalized Kähler geometry	(13:00–14:00)

Talks Invited by Research Sections and Special Session

September 22nd (Tue)

Algebra

- Shuji Yamamoto (Keio Univ.) Zeta values of totally real number fields and the Shintani generating class (14:15–15:15)

Geometry

- Hikaru Yamamoto (Tokyo Univ. of Sci.) Special Lagrangian submanifolds, mean curvature flows and their mirrors (16:00–17:00)

Complex Analysis

Award Lecture for the 2019 MSJ Analysis Prize

- Hiroki Sumi (Kyoto Univ.) Various randomness-induced phenomena in random holomorphic dynamical systems and their mechanisms (11:00–12:00)

- Yohei Komori (Waseda Univ.) On the growth rate of hyperbolic Coxeter groups (16:00–17:00)

Functional Equations

Award Lecture for the 2019 MSJ Analysis Prize

- Hidetaka Sakai (Univ. of Tokyo)^b The world of the Painlevé equations (16:30–17:30)

Functional Analysis

Award Lecture for the 2019 MSJ Analysis Prize

- Fumio Hiroshima (Kyushu Univ.) Renormalization and the ground state by functional integrations (14:15–15:15)

- Fumihiko Nakano (Tohoku Univ.)^b Scaling limit of the eigenvalues and eigenfunctions of 1-dimensional random Schrödinger operators (15:30–16:30)

Statistics and Probability

- Yoshihiro Abe (Chiba Univ.) Covering problems for random walks (14:20–15:20)

- Makoto Katori (Chuo Univ.) Elliptic extensions of determinantal point processes (15:40–16:40)

Applied Mathematics

- Masanori Sawa (Kobe Univ.) The construction theory of cubature formulas with applications to numerical analysis and statistics (15:45–16:45)

Topology

- Takayuki Morifuji (Keio Univ.) Twisted Alexander polynomials of hyperbolic knots and links (14:15–15:15)

September 23rd (Wed)

Algebra

- Soichi Okada (Nagoya Univ.) Schur's Q -functions and their generalizations (13:00–14:00)

Complex Analysis

- Shin-ichi Matsumura (Tohoku Univ.)^b Structure theorems on projective manifolds with non-negative curvature (11:00–12:00)

Functional Equations

- Sohei Ashida (Gakushuin Univ.) Accurate lower bounds for eigenvalues of electronic Hamiltonians (13:00–14:00)

Functional Analysis

- Ryosuke Nakahama (Kyushu Univ.) Construction of intertwining operators for restriction of holomorphic discrete series representations (13:15–14:15)

Topology

Award Lecture for the 2020 MSJ Geometry Prize

- Mikiya Masuda (Osaka City Univ.)^b Cohomological rigidity problem in toric topology (13:15–14:15)

Infinite Analysis

- Hideya Watanabe (Kyoto Univ.) η -quantization (10:30–11:30)

- Yoshihisa Saito (Rikkyo Univ.)^b On elliptic Artin groups (13:15–14:15)

September 24th (Thu)

Foundation of Mathematics and History of Mathematics

- Masahito Takase Shaping the fountains in Modern Western Mathematics ... (10:45–11:45)

Algebra

Award Lecture for the 2020 MSJ Algebra Prize

- Ryo Takahashi (Nagoya Univ.) Generation in module categories and derived categories of commutative rings (14:50–15:50)

Award Lecture for the 2020 MSJ Algebra Prize

- Takuzo Okada (Saga Univ.) Birational Mori fiber structures of Fano varieties and its application to rationality problems (16:00–17:00)

Geometry

- Atsushi Kanazawa (Kyoto Univ.)^b Kähler moduli spaces and stability spaces of triangulated categories (16:00–17:00)

Functional Equations

- Kousuke Kuto (Waseda Univ.) Cross-diffusion limit in the stationary SKT model (16:30–17:30)

Real Analysis

- Gaku Sadasue (Osaka Kyoiku Univ.) Martingale spaces and fractional integrals (15:00–16:00)

Functional Analysis

- Keiichi Watanabe (Niigata Univ.)^b On Möbius gyrovector spaces and a class of continuous mappings between them (15:20–16:20)

Statistics and Probability

- Yuta Koike (Univ. of Tokyo) Recent progress in high-dimensional central limit theorems (14:20–15:20)

- Kou Fujimori (Shinshu Univ.) The Dantzig selector for statistical models of stochastic processes in high-dimensional and sparse settings (15:40–16:40)

Applied Mathematics

- Katsuhisa Ozaki (Shibaura Inst. of Tech.) Error-free transformation for matrix multiplication: Basic, applications, and future (16:45–17:45)

Topology

- Alexander Berglund (Stockholm Univ.)^b Characteristic classes of manifold bundles and graph homology (14:15–15:15)

September 25th (Fri)

Foundation of Mathematics and History of Mathematics

- Nobu-Yuki Suzuki (Shizuoka Univ.) The disjunction and existence properties in intermediate predicate logics (11:00–12:00)

Functional Equations

- Jun-ichi Segata (Kyushu Univ.) Long time behavior of solution to the nonlinear Schrödinger equation with delta potential (16:30–17:30)

Real Analysis

- Keisuke Takasao
(Kyoto Univ./Kyoto Univ.) On the existence of the weak solution for the mean curvature flow with forcing term via the phase field method (15:30–16:30)

Applied Mathematics

- Sungrim Seirin Lee (Hiroshima Univ.) Pattern formation in life sciences and reaction-diffusion equation (15:30–16:30)
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Foundation of Mathematics and History of Mathematics

September 24th (Thu)

9:30–10:35

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|---|---|---|----|
| 1 | Shigeru Masuda
(Res. Workshop of Classical Fluid Dynamics) | Study of the Eulerian Integrals by Legendre | 15 |
| 2 | Shigeru Masuda
(Res. Workshop of Classical Fluid Dynamics) | The complete functions by Legendre | 15 |
| 3 | Shigeru Masuda
(Res. Workshop of Classical Fluid Dynamics) | Supplements of study of the elliptic functions and Eulerian Integrals by Legendre | 15 |
| 4 | Hideyuki Majima (Ochanomizu Univ.*) | Towards the year 2022, the 314th memorial year of SEKI Takakazu | 15 |

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

Masahito Takase Shaping the fountains in Modern Western Mathematics

11:50–12:00 Mathematics History Team Meeting

14:20–16:10

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|----|--|---|----|
| 5 | Masaya Suzuki (UL Japan) | Kleene’s ternary logic and fail safe | 10 |
| 6 | Takahiro Seki (Niigata Univ.) | A Gentzen-style formulation for involutive substructural logics with contraposition | 15 |
| 7 | Kenetsu Fujita (Gunma Univ.) | George Boolos’ “The Hardest Logic Puzzel Ever” revisited | 15 |
| 8 | Tatsuya Shimura (Nihon Univ.) | A simple proof of a stronger version of disjunction property | 15 |
| 9 | Yuya Okawa (Chiba Univ.)
Taishi Kurahashi (Kobe Univ.) | Generalizations of Bennet’s result on partially conservative sentences | 15 |
| 10 | Taishi Kurahashi (Kobe Univ.)
Yuya Okawa (Chiba Univ.) | Sublogics of the interpretability logic IL | 15 |
| 11 | Katsumi Sasaki (Nanzan Univ.) | Sequent systems without derivations with temporal assumptions | 15 |

September 25th (Fri)

9:30–10:50

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| 12 | Tomoya Machide
(Nat. Inst. of Information) | On a formula for systems of Boolean polynomial equations and computational complexity | 15 |
| 13 | Kenshi Miyabe (Meiji Univ.) | The rate of convergence of computable inductions | 15 |
| 14 | Kohtaro Tadaki (Chubu Univ.) | A refinement of quantum information theory by algorithmic randomness III | 15 |
| 15 | Toshimichi Usuba (Waseda Univ.) | On Reinhardt cardinals | 15 |
| 16 | Diego A. Mejía (Shizuoka Univ.) | Lebesgue measure zero modulo ideals | 15 |

11:00–12:00 Talk Invited by Section on Foundation and History of Mathematics

Nobu-Yuki Suzuki (Shizuoka Univ.) The disjunction and existence properties in intermediate predicate logics

12:10–12:30 Research Section Assembly**Algebra**

September 22nd (Tue)

9:40–12:00

- 1 Takao Watanabe (Osaka Univ.) A gap of the exponents of repetitions of Sturmian words 10
Suzue Ohnaka
(Naruo Senior High School)
- 2 Yasuhiro Terakado (Academia Sinica)^b Hecke eigensystems of automorphic forms (mod p) of Hodge type and algebraic modular forms 10
- 3 Toshiki Matsusaka (Nagoya Univ.) Trinity of the Eisenstein series 15
- 4 Akio Nakagawa (Chiba Univ.) Artin L -functions of diagonal hypersurfaces and generalized hypergeometric functions over finite fields 15
- 5 Genki Shibukawa (Kobe Univ.) Some singular values of the elliptic lambda function and incredible cubic identities 10
- 6 Wataru Takeda (Nagoya Univ.) On a kind of solutions to the Erdős last equation 10
- 7 Yasufumi Hashimoto Selberg's zeta function for the modular group in the critical strip 15
(Univ. of Ryukyus)
- 8 Saburo Saitoh^b Values of the Riemann zeta function at positive integers by means of the division by zero calculus 10
(Inst. of Reproducing Kernels / Gunma Univ.*)
Tsutomu Matsuura (Gunma Univ.)
Hiroshi Okumura
- 9 Debika Banerjee (IIIT-Delhi) On partial sum of Apostol's Möbius function 10
Yusuke Fujisawa
Makoto Minamide (Yamaguchi Univ.)
Yoshio Tanigawa
- 10 Shigeru Iitaka (Gakushuin Univ.*) Quasi-Mersenne primes and super-perfect numbers NEO 10
Hikaru Kajita
(Azaminodaiichi Elementary School)

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

Shuji Yamamoto (Keio Univ.) Zeta values of totally real number fields and the Shintani generating class

15:30–16:30

- 11 Yugen Takegahara (Muroran Inst. of Tech.) Lattice Burnside rings 15
Fumihito Oda (Kindai Univ.)
- 12 Hiroki Shimakura (Tohoku Univ.) On automorphism groups of the holomorphic VOAs associated with Niemeier lattices and the -1 -isometries 10
- 13 Bernhard Mühlherr (Univ. Giessen) Locally finite continuations and Coxeter groups of infinite ranks 15
Koji Nuida (Univ. of Tokyo)

September 23rd (Wed)

10:00–12:00

- 14 Makoto Enokizono (Tokyo Univ. of Sci.) Uniform bases for ideal arrangements 15
Tatsuya Horiguchi (Osaka City Univ.)
Takahiro Nagaoka (Kyoto Univ.)
Akiyoshi Tsuchiya (Univ. of Tokyo)
- 15 Makoto Enokizono (Tokyo Univ. of Sci.) An additive basis for the cohomology rings of regular nilpotent Hessenberg varieties 10
Tatsuya Horiguchi (Osaka City Univ.)
Takahiro Nagaoka (Kyoto Univ.)
Akiyoshi Tsuchiya (Univ. of Tokyo)
- 16 Toshiya Yurikusa (Tohoku Univ.) Complete special biserial algebras are g -tame 15
Toshitaka Aoki (Nagoya Univ.)
- 17 Sota Asai (Osaka Univ.) Wide intervals in lattices of torsion classes 15
- 18 Satoshi Usui (Tokyo Univ. of Sci.)^b Comparison between the Yoneda product with the cup product on Tate–Hochschild cohomology for Frobenius algebras 15
- 19 Kota Murakami (Kyoto Univ.)^b PBW parametrizations and generalized preprojective algebras 15
- 20 Mamoru Ueda (Kyoto Univ.) Affine super Yangians and rectangular W -superalgebras 15

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

- Soichi Okada (Nagoya Univ.) Schur's Q -functions and their generalizations

September 24th (Thu)

9:00–12:00

- 21 Takayuki Hibi (Osaka Univ.) The regularity and h -polynomial of Cameron–Walker graphs 15
Kyouko Kimura (Shizuoka Univ.)
Kazunori Matsuda (Kitami Inst. of Tech.)
Adam Van Tuyl (McMaster Univ.)
- 22 Akiyoshi Tsuchiya (Univ. of Tokyo) Initial ideals and their depth 10
Takayuki Hibi (Osaka Univ.)

23	<u>Hidefumi Ohsugi</u> (Kwansei Gakuin Univ.) <u>Akiyoshi Tsuchiya</u> (Univ. of Tokyo)	Nef-partitions arising from unimodular configurations	15
24	<u>Kohsuke Shibata</u> (Okayama Univ.) <u>Kohji Yanagawa</u> (Kansai Univ.)	Minimal free resolutions of Specht ideals for $(n - 2, 2)$ and $(d, d, 1)$. . .	10
25	<u>Shuhei Tsujie</u> (Hokkaido Univ. of Edu.) <u>Masamichi Kuroda</u> (Nippon Bunri Univ.)	A combinatorial reciprocity for lattice points of the complement of Weyl subarrangements of type B	10
26	<u>Jun Horiuchi</u> (Nippon Inst. of Tech.) <u>Kazuma Shimomoto</u> (Nihon Univ.)	Some remarks on weak normality in the mixed characteristic case	15
27	<u>Hiroki Matsui</u> (Univ. of Tokyo)	Construction of spectra of triangulated categories and their applications to commutative algebra	15
28	<u>Takeshi Yoshizawa</u> (Toyota Nat. Coll. of Tech.)	On the generalized torsion theory associated with a Serre subcategory	10
29	<u>Masaki Matsuno</u> (Shizuoka Univ.)	The classification of twisted superpotentials of 3-dimensional quadratic AS-regular algebras whose point schemes are elliptic curves	15
30	<u>Haigang Hu</u> (Shizuoka Univ.)	Classification of noncommutative conics associated to symmetric regular superpotentials	15
31	<u>Norihiro Hanihara</u> (Nagoya Univ.)	Quasi-equivalence of DG orbit categories	15
32	<u>Yoshiharu Shibata</u> (Yamaguchi Univ.) <u>Yosuke Kuratomi</u> (Yamaguchi Univ.)	On image summand coinvariant modules	10

14:15–14:30 Research Section Assembly**14:30–14:45 Presentation Ceremony for the 2020 MSJ Algebra Prize****14:50–15:50 Award Lecture for the 2020 MSJ Algebra Prize**

Ryo Takahashi (Nagoya Univ.) Generation in module categories and derived categories of commutative rings

16:00–17:00 Award Lecture for the 2020 MSJ Algebra Prize

Takuzo Okada (Saga Univ.) Birational Mori fiber structures of Fano varieties and its application to rationality problems

September 25th (Fri)

9:50–12:00

33	<u>Kaori Suzuki</u> (Yokohama Nat. Univ.)	On codim 4 Fano 3-folds with large Fano index	15
34	<u>Yuto Yamamoto</u> (IBS-CGP)	Periods of tropical Calabi–Yau hypersurfaces	15
35	<u>Yusuke Suyama</u> (Osaka Univ.)	Fano generalized Bott manifolds	10
36	<u>Yusuke Suyama</u> (Osaka Univ.)	Classification of toric log del Pezzo surfaces with few singular points	10
37	<u>Hideo Kojima</u> (Niigata Univ.)	Structure of open rational surfaces of logarithmic Kodaira dimension ≤ 1	15

38	Norihiko Minami (Nagoya Inst. of Tech.)	Sufficient criteria for some hierachies stronger than Higher Uniruledness = Lower Unirationality, applied to smooth (weighted) complete intersections	15
39	Akihiro Higashitani (Osaka Univ.)	Two polytopes arising from posets and combinatorial mutations	15
40	Naoki Fujita (Univ. of Tokyo) <u>Akihiro Higashitani</u> (Osaka Univ.)	Newton–Okounkov bodies of flag varieties and combinatorial mutations	15
14:15–16:15			
41	Yoshifumi Kato (Meijo Univ.)	Curvature matrix of the universal bundle of the Grassmann variety	15
42	Yoshifumi Kato (Meijo Univ.)	An observation on Schubert polynomials	15
43	Yoshifumi Kato (Meijo Univ.)	Explicit integral formulas related to flag varieties	15
44	Kotaro Kawatani (Yamato Univ./Osaka Pref. Univ.)	Stability conditions on a principle ideal domain	15
45	Koji Nuida (Univ. of Tokyo)	An elementary linear-algebraic proof without heavy computation for the group law on elliptic curves	10
46	Tomohiro Iwami (Kyushu Inst. of Tech.) ^b	Miyaoka–Yau type inequality driven by certain symmetric 2-forms on extremal neighborhood regarding to the associated 3rd Chern classes	15
47	Takeshi Usa (Univ. of Hyogo)	A family of canonical curves with genus 5 and the degeneration of syzygies	15

Geometry

September 22nd (Tue)

10:00–12:00

1	Yuya Takeuchi (Osaka Univ.)	A constraint on Chern classes of strictly pseudoconvex CR manifolds	15
2	Yuya Takeuchi (Osaka Univ.)	Stability of the existence of a pseudo-Einstein contact form	15
3	Tsukasa Takeuchi (Tokyo Univ. of Sci.)	Examples of 4 or 6-dimensional symplectic-Haantjes manifolds and about a relationship with recursion operators	10
4	Koki Matsuzaka (Hokkaido Univ.)	Toric construction of moduli space of quasi maps from \mathbb{P}^1 with two marked points to $\mathbb{P}^1 \times \mathbb{P}^1$	10
5	<u>Kotaro Kawai</u> (Gakushuin Univ.) Hikaru Yamamoto (Tokyo Univ. of Sci.)	Deformation theory of deformed Hermitian Yang–Mills connections and deformed Donaldson–Thomas connections	15
6	<u>Yuichi Ike</u> (Fujitsu Laboratories Ltd.) Tomohiro Asano (Univ. of Tokyo)	Microlocal theory of sheaves and displacement energy	15
7	<u>Morimichi Kawasaki</u> (Kyoto Univ.) Ryuma Orita (Niigata Univ.)	Pseudoheavy subsets of symplectic manifolds	10
8	Dounnu Sasaki (Waseda Univ.)	Denseness property of geodesic currents on a cusped hyperbolic surface	15

16:00–17:00 Talk Invited by Geometry Section

Hikaru Yamamoto (Tokyo Univ. of Sci.) Special Lagrangian submanifolds, mean curvature flows and their mirrors

September 23rd (Wed)

10:00–12:00

- 9 Takuma Tomihisa (Waseda Univ.) Spectra of the Rarita–Schwinger operator on some symmetric spaces
Yasushi Homma (Waseda Univ.) 10
- 10 Akinori Gondo (Hiroshima Univ.) Weakly reflective homogeneous hypersurfaces in noncompact symmetric spaces 15
- 11 Masahiro Kawamata (Hiroshima Univ.) Left-invariant Ricci soliton metrics on some almost abelian Lie groups
Hiroshi Tamaru (Osaka City Univ.) 15
- 12 Hiroshi Sawai On the structure theorem for Vaisman solvmanifolds 15
 (Numazu Nat. Coll. of Tech.)
- 13 Yuji Kondo (Hiroshima Univ.) A classification of left-invariant Lorentzian metrics on some nilpotent
Hiroshi Tamaru (Osaka City Univ.) Lie groups 15
- 14 Yasuki Tada (Hiroshima Univ.) On poles of quandles and quotients of Alexander quandles by poles
Hiroshi Tamaru (Osaka City Univ.) 15
- 15 Yu Kawakami (Kanazawa Univ.) Heinz-type mean curvature estimates in Lorentz–Minkowski space 15
Atsufumi Honda
 (Yokohama Nat. Univ.)
Miyuki Koiso (Kyushu Univ.)
Syunsuke Tori (Wajima High School)

13:15–14:15 Award Lecture for the 2020 MSJ Geometry Prize

Mikiya Masuda (Osaka City Univ.)^b Cohomological rigidity problem in toric topology

September 24th (Thu)

9:45–12:00

- 16 Yusuke Shinoda (Okayama Univ.) On sufficient conditions to extend Huber’s finite connectivity theorem
Kei Kondo (Okayama Univ.) to higher dimensions 15
- 17 Tadashi Fujioka (Kyoto Univ.) A fibration theorem for collapsing sequences of Alexandrov spaces 15
- 18 Masayuki Aino (RIKEN)^b Eigenvalue of Laplacian and Gromov–Hausdorff convergence to the
 product of spheres 15
- 19 Takumi Gomyou (Nagoya Univ.) Optimal embedding and maximization of the first eigenvalue of a finite
Toshimasa Kobayashi (Setsunan Univ.) graph 15
Takefumi Kondo (Kagoshima Univ.)
Shin Nayatani (Nagoya Univ.)
- 20 Taiki Yamada The lower bound of the eigenvalue of the Laplacian on simplicial com-
 (Res. Inst. for Humanity and Nature) plex by the Ricci curvature 15
- 21 Tetsu Toyoda (Kogakuin Univ.) A non-geodesic analogue of Reshetnyak’s majorization theorem 15

- 22 Motoko Kato (Ehime Univ.) On acylindrical hyperbolicity of some Artin groups 15
 Shin-ichi Oguni (Ehime Univ.)
- 23 Yoshito Ishiki (Univ. of Tsukuba) An interpolation of metrics and spaces of metrics 15
- 16:00–17:00 Talk Invited by Geometry Section**
 Atsushi Kanazawa (Kyoto Univ.)^b Kähler moduli spaces and stability spaces of triangulated categories

Complex Analysis

September 22nd (Tue)

9:00–10:30

- 1 Saburou Saitoh Okumura's disc series can beyond the crucial point of Däumler–Puha's
 (Inst. of Reproducing Kernels/Gunma Univ.*^a) horn torus models for the Riemann sphere 15
- 2 Hiroki Fujino (Nagoya Univ.) Correspondence between boundary value problems for harmonic map-
 Shintaro Akamine (Nihon Univ.) pings, minimal surfaces, and maximal surfaces 15
- 3 Gou Nakamura (Aichi Inst. of Tech.)^b Automorphism groups of compact non-orientable surfaces of genus 6
 with extremal metric discs 15
- 4 Ege Fujikawa (Tokyo Tech)^b Asymptotically conformal invariance of the essential length spectrum
 on a Riemann surface 15
- 5 Katsuhiko Matsuzaki (Waseda Univ.) Strongly symmetric homeomorphisms on the real line with uniform
 Huaying Wei (Jiangsu Normal Univ.) continuity 15
- 6 Takayuki Watanabe (Kyoto Univ.) The dichotomy of Markov random dynamical systems of rational maps
 Hiroki Sumi (Kyoto Univ.) 15

11:00–12:00 Award Lecture for the 2019 MSJ Analysis Prize

- Hiroki Sumi (Kyoto Univ.) Various randomness-induced phenomena in random holomorphic dy-
 namical systems and their mechanisms

14:15–15:55

- 7 Takanori Ayano (Osaka City Univ.) A refinement for the Hurwitz integrality of the series expansion of the
 Victor M. Buchstaber two-dimensional sigma functions 15
 (Steklov Inst. of Math.)
- 8 Makoto Abe (Hiroshima Univ.) Intermediate pseudoconvexity for unramified Riemann domains over \mathbb{C}^n
 Tadashi Shima (Hiroshima Univ.) 10
 Shun Sugiyama
 (NEC Comm. Systems, Ltd.)
- 9 Yuta Kusakabe (Osaka Univ.)^b Oka properties of complements of polynomially convex sets 15
- 10 Masataka Iwai (Osaka City Univ.) On asymptotic base loci of relative anti-canonical divisors 15
 Sho Ejiri (Osaka Univ.)
 Shin-ichi Matsumura (Tohoku Univ.)

12 Complex Analysis

- 11 Shinichi Tajima (Niigata Univ.*) Computing regular meromorphic differential forms via Saito's logarithmic residues 15
Katsusuke Nabeshima
(Tokushima Univ.)
- 12 Shinichi Tajima (Niigata Univ.*) An implementation of the Suwa method for computing versal unfoldings of codimension one complex analytic singular foliations 15
Katsusuke Nabeshima
(Tokushima Univ.)
- 13 Katsunori Iwasaki (Hokkaido Univ.) From hypergeometric groups to Siegel disks on K3 surfaces 15
Yuta Takada (Hokkaido Univ.)

16:00–17:00 Talk Invited by Complex Analysis Section

- Yohei Komori (Waseda Univ.) On the growth rate of hyperbolic Coxeter groups

September 23rd (Wed)

9:00–10:20

- 14 Tatsuhiko Honda (Senshu Univ.) Bohr's phenomenon on a complex Banach space 15
Hidetaka Hamada
(Kyushu Sangyo Univ.)
Yusuke Mizota (Kyushu Sangyo Univ.)
- 15 Ian Graham (Univ. of Toronto) Loewner chains and nonlinear resolvents of the Carathéodory family on the unit ball in \mathbb{C}^n 15
Hidetaka Hamada
(Kyushu Sangyo Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)
- 16 Ian Graham (Univ. of Toronto) g -Loewner chains, Bloch functions and extension operators in complex Banach spaces 15
Hidetaka Hamada
(Kyushu Sangyo Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)
Mirela Kohr (Babeş-Bolyai Univ.)
- 17 Hidetaka Hamada Support points for families of univalent mappings on bounded symmetric domains 15
(Kyushu Sangyo Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)
- 18 Hidetaka Hamada Closed range composition operators on the Bloch space of bounded symmetric domains 10
(Kyushu Sangyo Univ.)
- 19 Hidetaka Hamada Spiralshapelike mappings in several complex variables 10
(Kyushu Sangyo Univ.)
Mihai Iancu (Babeş-Bolyai Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)

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

- Shin-ichi Matsumura (Tohoku Univ.)^b Structure theorems on projective manifolds with non-negative curvature
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Functional Equations

September 22nd (Tue)

9:30–11:30

- 1 Hiroto Inoue (Kyushu Univ.) Matrix-valued Bratu equation associated with the symmetric domain of type BDI 15
- 2 Masatoshi Suzuki (Tokyo Tech) On a system of partial differential equations and entire functions of Hermite–Biehler class. II 10
- 3 Atsuhide Ishida (Tokyo Univ. of Sci.) On minimal velocity estimate in fractional relativistic mechanics 10
- 4 Hiroyuki Usami (Gifu Univ.) Asymptotic forms of solutions of perturbed half-linear equations 15
Luey Sokea (Gifu Univ.)
- 5 Tetsutaro Shibata (Hiroshima Univ.) Asymptotic expansion of oscillatory bifurcation curves of ODEs with nonlinear diffusion 15
- 6 Ryuji Kajikiya (Saga Univ.) Existence of symmetric and asymmetric nodal solutions for the Moore–Nehari equation. 15
- 7 Tatsuki Mori (Musashino Univ.) On the secondary bifurcation curves of a nonlocal Allen–Cahn–Nagumo equation 10
Kousuke Kuto (Waseda Univ.)
Tohru tsujikawa (Meiji Univ.)
Shoji Yotsutani (Ryukoku Univ.*)

14:15–16:15

- 8 Toshio Horiuchi (Ibaraki Univ.) Hardy’s inequalities with non-doubling weights and sharp remainders 15
- 9 Naoki Hamamoto (Osaka City Univ.) The best constant in Rellich–Hardy inequality for curl-free fields 12
Futoshi Takahashi (Osaka City Univ.)
- 10 Takanobu Hara (Hokkaido Univ.) Quasilinear elliptic equations with sub-natural growth terms in bounded domains 10
- 11 Alessio Pomponio (Politecnico di Bari) Ground state solutions for quasilinear scalar field equations arising in nonlinear optics 15
Tatsuya Watanabe
(Kyoto Sangyo Univ.)
- 12 Yohei Sato (Saitama Univ.) Nonlinear scalar field equations with Berestycki–Lions’ nonlinearity on large domains 15
Masataka Shibata (Tokyo Tech)
- 13 Yasuhiro Fujita (Univ. of Toyama) Propagation of singularities in a Hamilton–Jacobi equation with the initial data of the Takagi function 15
Nao Hamamuki (Hokkaido Univ.)
Norikazu Yanaguchi (Univ. of Toyama)
- 14 Kazuhiro Takimoto (Hiroshima Univ.) Bernstein type theorem for the parabolic 2-Hessian equation under weaker conditions 15

16:30–17:30 Award Lecture for the 2019 MSJ Analysis Prize

- Hidetaka Sakai (Univ. of Tokyo)^b The world of the Painlevé equations

September 23rd (Wed)

9:30–11:30

- 15 Ryu Fujiwara (Meiji Univ.) Existence of discontinuous stationary solutions of a nonlocal Allen–Cahn equation 15
- 16 Yuta Ishii (Tokyo Metro. Univ.) Existence of multi-peak stationary solutions to the Schnakenberg model
Kazuhiro Kurata (Tokyo Metro. Univ.) on metric graphs 15
- 17 Yuta Ishii (Tokyo Metro. Univ.) Stability analysis of multi-peak stationary solutions to the Schnakenberg model on metric graphs 15
- 18 Yasuhito Miyamoto (Univ. of Tokyo) A doubly critical semilinear heat equation in the L^1 space 10
- 19 Marius Ghergu (UCD) Radial single point rupture solutions for a general MEMS model 10
Yasuhito Miyamoto (Univ. of Tokyo)
- 20 Asato Mukai (Univ. of Tokyo) Refined construction of type II blow-up solutions for a semilinear heat equation with Joseph–Lundgren supercritical nonlinearity 12
Yukihiro Seki (Osaka City Univ.)
- 21 Isamu Ohnishi (Hiroshima Univ.) Characterization to behavior of solutions in semi-linear parabolic PDEs with a certain additional term 15

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

- Sohei Ashida (Gakushuin Univ.) Accurate lower bounds for eigenvalues of electronic Hamiltonians

September 24th (Thu)

9:30–11:30

- 22 Jumpei Inoue (Waseda Univ.) On the optimal distribution and the existence of an L^1 -unbounded
Kousuke Kuto (Waseda Univ.) sequence of steady states for the diffusive logistic equation 15
- 23 Yoshie Sugiyama (Osaka Univ.) On Hölder continuity of solutions to non-linear diffusion equation with
Masanari Miura (Yamato Univ.) derivative external forces 15
Seungwon Jeong (Seoul Nat. Univ.)
- 24 Yutaro Chiyo (Tokyo Univ. of Sci.) Does the repulsion term really derive boundedness in a chemotaxis
Masaaki Mizukami system? 15
(Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
- 25 Sachiko Ishida (Chiba Univ.) Stabilization of weak solution to parabolic equations with L^1 -conservation
Tomomi Yokota (Tokyo Univ. of Sci.) law. 15
- 26 Takayoshi Ogawa (Tohoku Univ.) Zero relaxation limit for the Keller–Segel equation to the drift-diffusion
Masaki Kurokiba system 15
(Muroran Inst. of Tech.)
- 27 Yuya Tanaka (Tokyo Univ. of Sci.) Does blow-up occur in a Keller–Segel system not only with logistic
Tomomi Yokota (Tokyo Univ. of Sci.) source but also with weak chemotactic sensitivity? 15
- 28 Kentarou Fujie (Tohoku Univ.) Comparison methods for a Keller–Segel-type model 10
Jie Jiang (WIPM)

14:15–16:15

- 29 Masamitsu Suzuki (Univ. of Tokyo) Local existence and nonexistence for fractional in time weakly coupled reaction-diffusion systems 10
- 30 Tsukasa Iwabuchi (Tohoku Univ.) Analyticity and large time behavior for the Burgers equation with the critical dissipation 10
- 31 Noboru Chikami (Nagoya Inst. of Tech.) Behavior of solutions to the energy critical Hardy–Hénon parabolic equation 10
Masahiro Ikeda (RIKEN/Keio Univ.)
Koichi Taniguchi (Nagoya Univ.)
- 32 Yoshinori Nishii (Osaka Univ.) Energy decay for small solutions to semilinear wave equations with weakly dissipative structure 12
Hideaki Sunagawa (Osaka City Univ.)
Hiroki Terashita
- 33 Yusuke Sugiyama (Univ. of Shiga Pref.) Finite time blow-up for parameterized 1D quasilinear wave equations 10
- 34 Mamoru Okamoto (Osaka Univ.) On the ill-posedness of the Cauchy problem for the nonlinear wave equation 10
Justin Forlano (Heriot-Watt Univ.)
- 35 Takashi Suzuki (Osaka Univ.) Minkowski metric and interface vanishing of non-stationary Maxwell equation 5

16:30–17:30 Talk Invited by Functional Equations Section

- Kousuke Kuto (Waseda Univ.) Cross-diffusion limit in the stationary SKT model

September 25th (Fri)

9:30–11:30

- 36 Hiromichi Itou (Tokyo Univ. of Sci.) On flat-punch indentation problems within the context of linearized viscoelasticity 15
Victor A. Kovtunenکو (Univ. of Graz/Lavrentyev Inst. of Hydrodynamics)
Kumbakonam R. Rajagopal (Texas A&M Univ.)
- 37 Tetu Makino (Yamaguchi Univ.*) On the existence of g-modes in adiabatic non-radial oscillations of gaseous stars 15
- 38 Takuya Sato (Tohoku Univ.)^b L^2 -decay for the one dimensional dissipative nonlinear Schrödinger equation in a critical exponent 15
Takayoshi Ogawa (Tohoku Univ.)
- 39 Chunhua Li (Yanbian Univ.) Large time asymptotics for a cubic nonlinear Schrödinger system in one space dimension, II 12
Yoshinori Nishii (Osaka Univ.)
Yuji Sagawa
Hideaki Sunagawa (Osaka City Univ.)
- 40 Masaru Hamano (Saitama Univ.) For equivalence of conditions on initial data to the nonlinear Schrödinger equation with an inverse power potential 10
Masahiro Ikeda (RIKEN/Keio Univ.)
- 41 Tomoyuki Tanaka (Nagoya Univ.) Well-posedness for the fourth-order Schrödinger equation with third order derivative nonlinearities 15
Hiroyuki Hirayama (Univ. of Miyazaki)
Masahiro Ikeda (RIKEN/Keio Univ.)
- 42 Yohei Yamazaki (Hiroshima Univ.) Center stable manifolds around line solitary waves of the Zakharov–Kuznetsov equation with critical speed 10

14:15–16:15

- 43 Yuuki Shimizu (Kyoto Univ.) A current-valued solution of the Euler equations on surfaces and its applications 15
- 44 Kohei Nakao (Nagano Univ.) On time-periodic solutions to the Boussinesq equations in exterior domains 10
- 45 Takahiro Okabe (Osaka Univ.) Annihilation of slow-decay factors of the Navier–Stokes flow by the external force 12
Lorenzo Brandolese (Univ. Lyon 1)
- 46 Itsuko Hashimoto Existence of radially symmetric stationary solutions for the compressible Navier–Stokes equation 10
(Kanazawa Univ./Osaka City Univ.)
Akitaka Matsumura (Osaka Univ.)
- 47 Masahiro Suzuki (Nagoya Inst. of Tech.) Stationary solutions to the Euler–Poisson equations in a perturbed half-space 15
Masahiro Takayama (Keio Univ.)
- 48 Masahiro Suzuki (Nagoya Inst. of Tech.) Stationary solutions to the Navier–Stokes equations in a perturbed half-space 15
Katherine Zhiyuan Zhang
(Brown Univ.)
- 49 Yusuke Ishigaki (Tokyo Tech) Diffusion wave phenomena and L^p decay estimates of solutions of compressible viscoelastic system 15

16:30–17:30 Talk Invited by Functional Equations Section

- Jun-ichi Segata (Kyushu Univ.) Long time behavior of solution to the nonlinear Schrödinger equation with delta potential

Real Analysis

September 24th (Thu)

10:00–11:55

- 1 Neal Bez (Saitama Univ.) Inverse Brascamp–Lieb inequalities via the heat equation 15
Shohei Nakamura (Saitama Univ.)
- 2 Aoi Honda (Kyushu Inst. of Tech.) Generalization of k -order additive monotone measure for nondiscrete space 15
Ryoji Fukuda (Oita Univ.)
Yoshiaki Okazaki
(Fuzzy Logic Systems Inst.)
- 3 Sachiko Atsushiba Fixed points and convergence of orbits of nonexpansive semigroups ... 15
(Tokyo Woman’s Christian Univ.)
- 4 Yukino Tomizawa Uniform convexity of complete Busemann spaces 15
(Niigata Inst. of Tech.)
- 5 Masahiro Ikeda (RIKEN/Keio Univ.)^b Composition operators on reproducing kernel Hilbert spaces with analytic positive definite functions 10
Isao Ishikawa (Ehime Univ.)
Yoshihiro Sawano (Chuo Univ.)

- 6 Naoya Hatano (Chuo Univ./RIKEN) Boundedness of composition operators on Morrey spaces 15
Masahiro Ikeda (RIKEN)
Isao Ishikawa (Ehime Univ.)
Yoshihiro Sawano (Chuo Univ.)
- 7 Yoichi Miyazaki (Nihon Univ.) A proof of the Gagliardo–Nirenberg inequality with BMO term via Muramatu’s integral formula 15
- 14:15–14:45**
- 8 Ryota Kawasumi Weak-weak boundedness of commutators of generalized fractional integral operators with functions in Campanato spaces 15
- 9 Ryota Kawasumi Generalized fractional integral and maximal operators on Orlicz–Morrey
Eiichi Nakai (Ibaraki Univ.) and weak Orlicz–Morrey spaces 15
Minglei Shi (Ibaraki Univ.)
- 15:00–16:00 Talk Invited by Real Analysis Section**
- Gaku Sadasue (Osaka Kyoiku Univ.) Martingale spaces and fractional integrals

September 25th (Fri)

9:45–12:00

- 10 Chiharu Kosugi (Japan Women’s Univ.) Uniqueness of weak solutions to initial and boundary value problems
Toyohiko Aiki (Japan Women’s Univ.) representing motion of the elastic material on plane 15
- 11 Makoto Okumura (Osaka Univ.) A structure-preserving scheme for the Cahn–Hilliard equation with dynamic boundary conditions which has the total mass conservation 15
- 12 Masaaki Mizukami Uniform-in-time estimates for solutions of a chemotaxis-competition model and those of the Lotka–Volterra competition model 15
(Tokyo Univ. of Sci.)
- 13 Yutaka Tsuzuki Existence for initial–boundary value problems for Vlasov–Poisson equations with angle error in magnetic field 15
(Hiroshima Shudo Univ.)
- 14 Shodai Kubota (Chiba Univ.) Optimal control problems for multidimensional systems of Kobayashi–
Ken Shirakawa (Chiba Univ.) Warren–Carter type 15
- 15 Takeshi Fukao (Kyoto Univ. of Edu.) Vanishing diffusion in a dynamic boundary condition for the Cahn–
Pierluigi Colli (Univ. of Pavia) Hilliard equation 15
- 16 Ken Shirakawa (Chiba Univ.) Sufficient condition for the existence of one-dimensional crystalline so-
Hiroshi Watanabe (Oita Univ.) lution of the Kobayashi–Warren–Carter type system 15
- 17 Noriaki Yamazaki (Kanagawa Univ.) Control of parameter-dependent evolution equations governed by time-
Nobuyuki Kenmochi (Chiba Univ.*) dependent subdifferentials 15
Ken Shirakawa (Chiba Univ.)

14:15–15:15

- 18 Kota Kumazaki (Nagasaki Univ.)^b Large time behavior of a solution of a one-dimensional free boundary problem describing water swelling 15
- 19 Shun Uchida (Oita Univ.) Solvability of doubly nonlinear parabolic equations with p -Laplacian 15
- 20 Hiroshi Watanabe (Oita Univ.) Traveling waves with multiple points of discontinuities to scalar parabolic-hyperbolic conservation laws 15

- 21 Toshitaka Matsumoto (Shizuoka Univ.) Well-posedness and approximation solvability for evolution equations governed by quasilinear operators satisfying Carathéodory's conditions
Hirokazu Oka (Ibaraki Univ.)
Naoki Tanaka (Shizuoka Univ.) 15

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

- Keisuke Takasao (Kyoto Univ./Kyoto Univ.) On the existence of the weak solution for the mean curvature flow with forcing term via the phase field method

Functional Analysis

September 22nd (Tue)

10:00–11:45

- 1 Hiroshi Inoue (Daichi Univ. of Pharm.) Non-self-adjoint hamiltonians defined by biorthogonal sequences and sesquilinear forms 15
- 2 Amane Kiyose (Kyoto Univ.) On the Mourre estimates for Floquet Hamiltonians 15
Tadayoshi Adachi (Kyoto Univ.)
- 3 Kyohei Itakura (Ritsumeikan Univ.) Stationary scattering theory for repulsive Hamiltonians 15
- 4 Toshimitsu Takaesu (Gunma Univ.) Scaling limits with a removal of ultraviolet cutoffs for the system of semi-relativistic particles coupled to a Klein–Gordon field 15
- 5 Yoritaka Iwata (Kansai Univ.) Application of abstract Miura transform to higher order abstract evolution equations 15
- 6 Shuji Watanabe (Gunma Univ.) An operator-theoretical treatment of the specific heat of a superconductor in the BCS-Bogoliubov model of superconductivity 15

14:15–15:15 Award Lecture for the 2019 MSJ Analysis Prize

- Fumio Hiroshima (Kyushu Univ.) Renormalization and the ground state by functional integrations

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

- Fumihiko Nakano (Tohoku Univ.)^b Scaling limit of the eigenvalues and eigenfunctions of 1-dimensional random Schrödinger operators

September 23rd (Wed)

10:30–11:45

- 7 Koei Kawamura (Kyoto Univ.)^b Decomposition of spherical representations and an addition theorem for multivariate hypergeometric polynomials 15
- 8 Hideto Nakashima (Nagoya Univ.) On Capelli-type identities of rings of invariant differential operators on generalized Vinberg cones 15
- 9 Nobukazu Shimeno (Kwansei Gakuin Univ.) An extension of Pizzetti's formula in Dunkl analysis 15
Naoya Tani (Kwansei Gakuin Univ.)
- 10 Nobukazu Shimeno (Kwansei Gakuin Univ.) Hypergeometric Fourier transform associated with a root system of type BC 15
Tatsuo Honda
Hiroshi Oda (Takushoku Univ.)

13:15–14:15 Talk Invited by Functional Analysis Section

- Ryosuke Nakahama (Kyushu Univ.) Construction of intertwining operators for restriction of holomorphic discrete series representations

September 24th (Thu)

10:00–12:00

- 11 Kiyoki Tanaka (Daido Univ.) Essential norm estimates for little Hankel operators on Bergman spaces
Satoshi Yamaji (Kobe City Coll. of Tech.) 15
- 12 Yasuo Iida (Kanazawa Med. Univ.) Bounded subsets of the Zygmund F -algebra 15
- 13 Sei-Ichiro Ueki (Tokai Univ.) Isometries of the Novinger–Oberlin type Privalov space 10
- 14 Shiho Oi (Niigata Univ.) Surjective linear isometries on algebras of Lipschitz maps with the values in the matrix algebra 15
- 15 Norio Niwa (Nihon Univ.) Surjective isometries on a Banach space of analytic functions on the open unit disc, II 15
Takeshi Miura (Niigata Univ.)
- 16 Takeshi Miura (Niigata Univ.) On surjective isometries on Lipschitz space of analytic functions 15
- 17 Hironao Koshimizu (Yonago Nat. Coll. of Tech.) Surjective isometries on uniform algebra valued C^1 space 15
Takeshi Miura (Niigata Univ.)

14:15–15:10

- 18 Hiroyasu Hamada (Sasebo Nat. Coll. of Tech.) C^* -algebras generated by multiplication operators and composition operators by functions with self-similar branches 15
- 19 Masaru Nagisa (Chiba Univ.) Subspaces generated by orthonormal vectors of some Schmidt ranks ... 15
Hiroyuki Osaka (Ritsumeikan Univ.)
Priyabrata Bag (Narsee Monjee Inst. of Management Stud.)
Santanu Dey (Indian Inst. of Tech. Bombay)
- 20 Yuki Seo (Osaka Kyoiku Univ.) Norm inequalities of n -variable matrix geometric means 15

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

- Keiichi Watanabe (Niigata Univ.)^b On Möbius gyrovector spaces and a class of continuous mappings between them

Statistics and Probability

September 22nd (Tue)

9:00–12:00

- 1 Yuki Tokushige (Kyoto Univ.)^b Biased RWs on random trees 15

- 2 Yuto Nakajima (Kyoto Univ.) Dimensions of slices through the Sierpiński gasket 15
- 3 Shoto Osaka (Yokohama Nat. Univ.) On the rate of convergence for Takagi class functions 15
 Masato Takei (Yokohama Nat. Univ.)
- 4 Johannes Jaerisch (Nagoya Univ.) Mixed Birkhoff spectra of one-dimensional Markov maps 15
 Hiroki Takahasi (Keio Univ.)
- 5 Kiyoi Hoshino (Osaka Pref. Univ.) On a Riemann approximation of the stochastic integral 15
- 6 Mitsumasa Ikeda (Osaka Univ.) A new discretization scheme for one dimensional stochastic differential equations using time change method 15
- 7 Yushi Hamaguchi (Kyoto Univ.) Time-inconsistent stochastic recursive control and backward stochastic Volterra integral equations 15
- 8 Naoyuki Ichihara Phase transitions arising in stochastic ergodic control with bounded inward drift 15
 (Aoyama Gakuin Univ.)
- 9 Katsuya Kojo On the determinism of multivariate symmetric stable distributions whose spectral measures are constructed by point masses 10
 (Nat. Inst. of Tech., Niihama Coll.)
- 10 Jorge González Cázares^b The density of a stable process and its maximum 15
 (Warwick Univ./The Alan Turing Inst.)
 Higa Aruturo Kohatsu
 (Ritsumeikan Univ.)
 Aleksandar Mijatović
 (Warwick Univ./The Alan Turing Inst.)
- 11 Yuta Arai (Chiba Univ.) The KPZ fixed point for discrete time geometric TASEP 15
- 12 Hiroshi Kawabi (Keio Univ.)^b Uniqueness of Dirichlet forms related to stochastic quantization under exponential/trigonometric interactions on the two-dimensional torus .. 15
 Sergio Albeverio (Univ. of Bonn)
 Stefan-Radu Mihalache (BaFin)
 Michael Röckner (Bielefeld Univ.)

14:20–15:20 Talk Invited by Statistics and Probability Section

Yoshihiro Abe (Chiba Univ.) Covering problems for random walks

15:40–16:40 Talk Invited by Statistics and Probability Section

Makoto Katori (Chuo Univ.) Elliptic extensions of determinantal point processes

September 23rd (Wed)

9:00–11:15

- 13 Toshiharu Fujita On policy for Markov decision process with converging branch system 10
 (Kyushu Inst. of Tech.)
- 14 Shoko Chisaki (Osaka Inst. of Tech.) Uniform dropout designs with applications 15
 Nobuko Miyamoto (Tokyo Univ. of Sci.)
 Ryoh Fuji-Hara (Univ. of Tsukuba*)
- 15 Xiao-Nan Lu (Univ. of Yamanashi) Circulant almost orthogonal arrays and perfect binary sequences 15
 Miwako Mishima (Gifu Univ.)
 Nobuko Miyamoto (Tokyo Univ. of Sci.)
 Masakazu Jimbo (Chubu Univ.)

16	<u>Kazuki Matsubara</u> (Chuo Gakuin Univ.) Sanpei Kageyama (Hiroshima Univ.*)	The existence of perpendicular multi-arrays	15
17	<u>Naoto Shimaru</u> (Okayama Univ. of Sci.) Toshifumi Nagayoshi (Okayama Univ. of Sci.) Hiroki Sato (Okayama Univ. of Sci.)	On the χ^2 statistics of leading digits of irrational rotations with a large first or second partial quotient	10
18	<u>Koshiro Yonenaga</u> (Hokkaido Univ.) Akio Suzukawa (Hokkaido Univ.)	On exact distributions of the linear discriminant function in a Bayesian setting	15
19	<u>Ayaka Yagi</u> (Tokyo Univ. of Sci.) Mizuki Onozawa (Showa Elementary School) Takashi Seo (Tokyo Univ. of Sci.)	A new test statistic for two mean vectors with two-step monotone missing data	15
20	<u>Yoshihide Kakizawa</u> (Hokkaido Univ.)	Multivariate BS type distribution and its application to nonparametric density estimation	15
21	<u>Gaku Igarashi</u> (Univ. of Tsukuba)	A test on discontinuity of densities using nonparametric beta kernel density ratio estimation	15

11:30–12:00 Research Section Assembly

September 24th (Thu)

9:00–11:50

22	<u>Yuichi Goto</u> (Waseda Univ.)	Distribution free tests for structural break of counting processes	15
23	<u>Yujie Xue</u> (Waseda Univ.)	The pros of cons on the combination of linear quantile regression and LASSO with long-memory disturbances	15
24	<u>Yan Liu</u> (Waseda Univ.) Akitoshi Kimura (Waseda Univ.) Masanobu Taniguchi (Waseda Univ.) Hernando Ombao (King Abdullah Univ. of Sci. Tech.)	Topological analysis for local Granger causality	15
25	<u>Fumiya Akashi</u> (Univ. of Tokyo) Holger Dette (Ruhr-Univ. Bochum)	Robust regression on hyper-spheres with unspecified heteroscedastic errors	15
26	<u>Fumiya Akashi</u> (Univ. of Tokyo) Junichi Hirukawa (Niigata Univ.) Konstantinos Fokianos (Lancaster Univ.)	Inference for heavy-tailed time varying processes by self-weighting	15
27	<u>Atina Husnaqilati</u> (Tohoku Univ.) Yohji Akama (Tohoku Univ.)	Component retention to microarray datasets and Marčenko–Pastur setting	15
28	<u>Koji Tsukuda</u> (Kyushu Univ.) Shun Matsuura (Keio Univ.)	High-dimensional limit theorem associated with trace of four Wishart matrices and its application	15
29	<u>Aki Ishii</u> (Tokyo Univ. of Sci.) Kazuyoshi Yata (Univ. of Tsukuba) Makoto Aoshima (Univ. of Tsukuba)	A test procedure for high-dimensional eigenvectors	15

- 30 Yugo Nakayama (Kyoto Univ.) Clustering by kernel principal component analysis for high-dimensional data 15
Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)

- 31 Noboru Nomura (Kochi Univ.) Evaluation of derivatives in the calculation of orthant probabilities with orthogonal projection 15

14:20–15:20 Talk Invited by Statistics and Probability Section

- Yuta Koike (Univ. of Tokyo) Recent progress in high-dimensional central limit theorems

15:40–16:40 Talk Invited by Statistics and Probability Section

- Kou Fujimori (Shinshu Univ.) The Dantzig selector for statistical models of stochastic processes in high-dimensional and sparse settings

Applied Mathematics

September 22nd (Tue)

9:50–11:45

- 1 Tatsuya Tsurii Periodicity of n -state Fourier walks on complete graphs with self-loops 10
(Osaka Univ. of Human Sci.)
Naoharu Ito (Nara Univ. of Edu.)
Toyoki Matsuyama
(Nara Univ. of Edu.)
- 2 Ayaka Ishikawa (Yokohama Nat. Univ.) A family of quantum walks on finite graphs 15
- 3 Kaname Matsue (Kyushu Univ.) An interpolation between unitary quantum walk and open quantum random walk 15
Etsuo Segawa (Yokohama Nat. Univ.)
- 4 Iwao Sato (Oyama Nat. Coll. of Tech.) The trace formula with respect to the Grover matrix of a graph 15
Norio Konno (Yokohama Nat. Univ.)
Hideo Mitsunashi (Hosei Univ.)
Hideaki Morita (Muran Inst. of Tech.)
- 5 Hideaki Morita (Muran Inst. of Tech.) On the Hashimoto expression for graph zeta functions 15
- 6 Masato Kobayashi (Kanagawa Univ.)^b q -determinant, q -Vandermonde and signed bigrassmannian polynomials 15
- 7 Yasuhide Numata (Shinshu Univ.) The eigenvalues of a matrix defined by the complete graph with selfloops 15
Akiko Yazawa (Shinshu Univ.)

14:15–15:30

- 8 Masahiro Hachimori Nonpure simplicial complexes and sequential partitionability 15
(Univ. of Tsukuba)
- 9 Mitsuhiro Miyazaki On the Gorenstein property of the Ehrhart rings of some types of stable set polytopes of a graph 15
(Kyoto Univ. of Edu.)

- 10 Hiroki Kajiura (Hiroshima Univ.) Integration error bounds for a finite subset of commutative association
Makoto Matsumoto (Hiroshima Univ.) schemes and a generalization of difference sets. 15
Takayuki Okuda (Hiroshima Univ.)
- 11 Hiroki Kajiura (Hiroshima Univ.) A generalization of difference sets to association schemes and 2-designs
. 15
- 12 Shohei Satake (Kumamoto Univ.) Near-homogeneous tournaments from almost difference sets 15

15:45–16:45 Talk Invited by Applied Mathematics Section

- Masanori Sawa (Kobe Univ.) The construction theory of cubature formulas with applications to
numerical analysis and statistics

September 23rd (Wed)

9:50–12:00

- 13 Kiyoshi Ando Contractible edges in k -connected graphs with minimum degree greater
(Nat. Inst. of Information) than or equal to $\lfloor \frac{3k-1}{2} \rfloor$ 15
- 14 Shinya Fujita (Yokohama City Univ.) On properly ordered coloring of vertices in a vertex-weighted graph
Sergey Kitaev (Univ. of Strathclyde) 10
Shizuka Sato (Yokohama City Univ.)
Li-Da Tong (Nat. Sun Yat-sen Univ.)
- 15 Ronald J. Gould (Emory Univ.) Vertex-disjoint chorded cycles and degree sum condition 10
Kazuhide Hirohata
(Ibaraki Nat. Coll. of Tech.)
Ariel Keller Rorabaugh
(Univ. of Tennessee)
- 16 Naoki Matsumoto (Keio Univ.) On the difference between game chromatic number and chromatic num-
ber of graphs 10
- 17 Kenta Noguchi (Tokyo Univ. of Sci.) Proper orientation number of planar graphs 10
- 18 Shunichi Maezawa ^b A forbidden pair for the existence of spanning k -trees in graphs 15
(Yokohama Nat. Univ.)
Kenta Ozeki (Yokohama Nat. Univ.)
- 19 Toshiki Abe (Yokohama Nat. Univ.) Alon–Tarsi number of K_5 -minor-free graphs 15
Kenta Ozeki (Yokohama Nat. Univ.)
Seog-Jin Kim (Konkuk Univ.)
- 20 Atsuhiko Nakamoto Quadrangulations of a polygon with spirality 15
(Yokohama Nat. Univ.)
Fumiya Hidaka (Yokohama Nat. Univ.)
- 21 Atsuhiko Nakamoto The number of diagonal flips in triangulations on closed surfaces 15
(Yokohama Nat. Univ.)
Daiki Ikegami (Yokohama Nat. Univ.)

September 24th (Thu)

9:00–12:00

- 22 Ippei Obayashi (RIKEN/Tohoku Univ.) Field choice problem on persistent homology 15
Michio Yoshiwaki
 (RIKEN/Osaka City Univ./Kyoto Univ.)
- 23 Yasuaki Hiraoka (Kyoto Univ./RIKEN) Algebraic stability theorem for zigzag persistence modules 15
Michio Yoshiwaki
 (RIKEN/Kyoto Univ./Osaka City Univ.)
- 24 Emerson Gaw Escolar Every pair of Λ -interleavings are $\tilde{\Lambda}$ -interleaved 15
 (RIKEN/Kyoto Univ.)
 Killian F. Meehan (Kyoto Univ.)
Michio Yoshiwaki
 (RIKEN/Osaka City Univ./Kyoto Univ.)
- 25 Ken Nakashima (RIKEN) On approximation of 2D persistence modules by interval-decomposables 15
 Hideto Asashiba (Shizuoka Univ.)
 Emerson Gaw Escolar
 (RIKEN/Kyoto Univ.)
 Michio Yoshiwaki
 (RIKEN/Kyoto Univ./Osaka City Univ.)
- 26 Tatsuki Shimizu (Kyoto Univ.)^b Limit theorems in the decomposition theory of multi-parameter persistent homology 15
 Yasuaki Hiraoka (Kyoto Univ.)
- 27 Jun Miyanaga (Kyoto Univ.) Large deviation principle for persistence diagrams of random cubical complex processes 15
 Yasuaki Hiraoka (Kyoto Univ.)
 Shu Kanazawa (Kyoto Univ.)
 Kenkichi Tsunoda (Osaka Univ.)
- 28 Shu Kanazawa (Kyoto Univ.) Law of large numbers for Betti numbers of random simplicial complexes 15
- 29 Tatsuya Mikami (Kyoto Univ.) First passage percolation on crystal lattices 15
- 30 Emerson Gaw Escolar Mapping firms' locations in technological space: A topological analysis of patent statistics 15
 (RIKEN/Kyoto Univ.)
 Yasuaki Hiraoka (Kyoto Univ.)
 Mitsuru Igami (Yale Univ.)
 Yasin Ozcan
 (MIT Sloan/FTI Consulting)
- 31 Tomoki Uda (Tohoku Univ.) Interleaving distance on merge trees of grid data sublevelsets on different grid topologies 12
- 32 Masashi Wakaiki (Kobe Univ.) Robustness of strong stability with respect to sampling 15

14:15–16:30

- 33 Fuminori Sakaguchi (Univ. of Fukui) A possibility of wider application of an algorithm for solving ODEs by means only of four arithmetical operations among integers 15
- 34 Kazunori Matsui (Kanazawa Univ.) Projection methods for the Navier–Stokes equation with boundary conditions of Dirichlet type on the pressure 15
- 35 Xuefeng Liu (Niigata Univ.) Pointwise error estimation for finite element solution to boundary value problems with $O(h^2)$ convergence rate 15

- 36 Takuya Tsuchiya (Ehime Univ.) A robust discontinuous Galerkin scheme on anisotropic meshes 15
Takahito Kashiwabara (Univ. of Tokyo)
- 37 Hidenori Ogata Method of fundamental solutions for the problem of doubly-periodic
(Univ. of Electro-Comm.) potential flow 15
- 38 Hideki Murakawa (Ryukoku Univ.) Energy-dissipating finite-volume scheme for nonlinear nonlocal Fokker–
Rafael Bairo (Imperial Coll. London) Planck type equations 15
José A. Carrillo (Univ. of Oxford)
Markus Schmidtchen (Sorbonne Univ.)
- 39 Yoshitaka Watanabe (Kyushu Univ.) An efficient approach for verifying the existence of inverse of linear
Takehiko Kinoshita (Kyushu Univ.) operators in Hilbert spaces and its applications 15
Mitsuhiro T. Nakao (Waseda Univ.)
- 40 Takehiko Kinoshita (Kyushu Univ.) On the decreaseable effect of wrapping effect using a priori estimates sep-
Kouji Hashimoto arating initial values in the verification problem for parabolic equations
(Nakamura Gakuen Univ.) 15
Mitsuhiro T. Nakao (Waseda Univ.)

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

- Katsuhisa Ozaki Error-free transformation for matrix multiplication: Basic, applications,
(Shibaura Inst. of Tech.) and future

September 25th (Fri)

9:00–11:45

- 41 Nobito Yamamoto Construction of local Lyapunov functions around non hyperbolic equi-
(Univ. of Electro-Comm.) libria by verified computation 15
Koki Nitta (Univ. of Electro-Comm.)
- 42 Shinya Uchiumi (Gakushuin Univ.) Guaranteed bounds for the eigenvalues of Laplacian in curved domains
..... 15
- 43 Akitoshi Takayasu (Univ. of Tsukuba) Homoclinics and global existence of solutions to a quadratic nonlinear
Jonathan Jaquette (Boston Univ.) Schrödinger equation 15
- 44 Tetsuya Ishiwata ^b Positively preserving scheme for stochastic differential equations 10
(Shibaura Inst. of Tech.)
Keisuke Abiko (Shibaura Inst. of Tech.)
- 45 Tetsuya Ishiwata Connection structure of deep neural networks and expressive power of
(Shibaura Inst. of Tech.) finite dimensional models 10
Jumpei Nagase (Shibaura Inst. of Tech.)
- 46 Shunpei Terakawa (Kobe Univ.) Learnability of numerical integrators for neural ordinary differential
Takashi Matsubara (Osaka Univ.) equations 15
Takaharu Yaguchi (Kobe Univ.)
- 47 Takashi Sakajo (Kyoto Univ.) Vortex equilibria on the surface of a torus 15
- 48 Ayuki Sekisaka (Meiji Univ.) ^b The Jeans instability and dynamics in the nebula model of compressive
viscous gases 15
- 49 Yukihiko Nakata A distributed delay differential equation with a step-type nonlinearity
(Aoyama Gakuin Univ.) 15
Gabriella Vas (Univ. Szeged)

- 50 Tetsuya Ishiwata ^b Stability of periodic solutions to 2 dimensional delay differential equation
(Shibaura Inst. of Tech.) 10
Alexey Eremin
(Saint Petersburg State Univ.)
Emiko Ishiwata (Tokyo Univ. of Sci.)
Yukihiko Nakata
(Aoyama Gakuin Univ.)
- 51 Mikio Murata Analysis of Turing instability in max function type diffusion cellular automata 15
(Tokyo Univ. of Agri. and Tech.)
- 14:15–15:15**
- 52 Itsuki Watanabe (Waseda Univ.) Limit theorems for a space-homogeneous nonlocal diffusion with non-linear reactions 15
- 53 Ken-Ichi Nakamura (Kanazawa Univ.) Speed of traveling waves for discrete bistable Lotka–Volterra competition system 15
Masahiro Hiyoshi (Kanazawa Univ.)
Takafumi Yamazaki (Kanazawa Univ.)
- 54 Yasumasa Nishiura (Hokkaido Univ.*) Complex oscillatory motion of multiple spikes for a three-component Schnakenberg model 15
Shuangquan Xie (Tohoku Univ.)
Theodore Kolokolnikov
(Dalhousie Univ.)
- 55 Masaharu Nagayama (Hokkaido Univ.) Mathematical modeling for a self-inverted reciprocation of a self-propelled material 15
Yusuke Satoh (Hokkaido Univ.)
Satoshi Nakata (Hiroshima Univ.)

15:30–16:30 Talk Invited by Applied Mathematics Section

- Sungrim Seirin Lee (Hiroshima Univ.) Pattern formation in life sciences and reaction-diffusion equation

Topology

September 22nd (Tue)

10:00–12:00

- 1 Ryo Hanaki (Gifu Univ.) On fertility of knot shadows 10
- 2 Naoko Kamada (Nagoya City Univ.) Almost classical virtual links 10
- 3 Yoshiyuki Ohyama A construction of infinitely many virtual knots with properties of Kishino's knot 10
(Tokyo Woman's Christian Univ.)
Migiwa Sakurai
(Shibaura Inst. of Tech.)
- 4 Haruko Miyazawa (Tsuda Coll.) The Dabkowski–Sahi invariant and 4-moves for links 10
Kodai Wada (Osaka Univ.)
Akira Yasuhara (Waseda Univ.)

- 5 Atsuhiko Mizusawa (Waseda Univ.)
Yuka Kotorii (RIKEN/Osaka Univ.) An algorithm which determine whether given two 4-component links are link-homotopic 15
- 6 Ipei Ishii
Takuji Nakamura (Univ. of Yamanashi)
Toshio Saito (Joetsu Univ. of Edu.) A coloring invariant of 3-manifolds derived from flow spines and virtual knot diagrams 10
- 7 Kazuhiro Ichihara (Nihon Univ.)
Toshio Saito (Joetsu Univ. of Edu.)
In Dae Jong (Kindai Univ.)
Thomas W. Mattman
(California State Univ., Chico) Two-bridge knots admit no purely cosmetic surgeries 15
- 8 Yasuharu Nakae (Akita Univ.)
Kazuhiro Ichihara (Nihon Univ.) Dehn surgeries on genus one fibered knots and left-orderability of fundamental groups 15
- 9 Takefumi Nosaka (Tokyo Tech) Cellular chain complexes of universal covers of some 3-manifolds 10
- 10 Takefumi Nosaka (Tokyo Tech) An $SL_2(\mathbb{R})$ -Casson invariant and Reidemeister torsions 15

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

- Takayuki Morifuji (Keio Univ.) Twisted Alexander polynomials of hyperbolic knots and links

September 23rd (Wed)

10:00–11:40

- 11 Genki Omori (Tokyo Univ. of Sci.)
Naoki Sakata (Saitama Univ.) Dehn twist-crosscap slide presentations for involutions on non-orientable surfaces of genus 4 and 5 15
- 12 Yuta Nozaki (Hiroshima Univ.)
Masatoshi Sato (Tokyo Denki Univ.)
Masaaki Suzuki (Meiji Univ.) Abelian quotients of the Y -filtration on the homology cylinders via the LMO functor 15
- 13 Masaki Taniguchi (RIKEN)^b Codimension-1 embeddings of 3-manifolds and Yang–Mills gauge theory 15
- 14 Nobutaka Asano (Tohoku Univ.) Vertical 3-manifolds in simplified genus 2 trisections of 4-manifolds ... 15
- 15 Kengo Kawamura (Kogakuin Univ.) Spinning construction of immersed 2-knot and its irreducibility 10
- 16 Tetsuya Abe (Ritsumeikan Univ.)^b
Keiji Tagami (Nat. Fisheries Univ.) Table of annulus presentations of knots 10
- 17 Seiichi Kamada (Osaka Univ.)
Benjamin Bode (Osaka Univ./JSPS) On knotted surfaces as vanishing sets of polynomials 10
- 18 Seiichi Kamada (Osaka Univ.)
Andrew Bartholomew (Univ. Sussex)
Roger Fenn (Univ. Sussex)
Naoko Kamada (Nagoya City Univ.) On doodles and commutator identities 10

13:15–14:15 Award Lecture for the 2020 MSJ Geometry Prize

- Mikiya Masuda (Osaka City Univ.)^b Cohomological rigidity problem in toric topology

September 24th (Thu)

10:00–11:55

- 19 Takamichi Sato (Waseda Univ.) Isomorphism between the stabilizers of finite sets of numbers in the R. Thompson group F 15
- 20 Hirofumi Kondo A Nullstellensatz for ideals of C^∞ functions in dimension 2 15
(Ninomiya High School)
- 21 Katsuhisa Koshino (Kanagawa Univ.) The topological type of a function space on a metric measure space with the L^p norm 15
- 22 Naoki Kitazawa (Kyushu Univ.) Infinitely many 7-dimensional closed and simply-connected manifolds via construction of explicit fold maps into the 4-dimensional Euclidean space 15
- 23 Shuhei Maruyama (Nagoya Univ.) Poincaré's rotation number and quasi-morphisms on symplectomorphism groups of the disk 10
- 24 Takahiro Matsuyuki (Univ. of Tokyo) Obstruction class for higher homotopy algebra models and Milnor–Wood inequality 15
- 25 Hiraku Nozawa (Ritsumeikan Univ.)^b Haefliger cohomology of complete Riemannian foliations 15
- 26 Hirofumi Nakai (Tokyo City Univ.) Real Johnson–Wilson homology groups of spectra with a few cells 15
Zen-ichi Yosimura
(Nagoya Inst. of Tech.*)

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

- Alexander Berglund (Stockholm Univ.)^b Characteristic classes of manifold bundles and graph homology

Infinite Analysis

September 22nd (Tue)

9:30–12:00

- 1 Masataka Kanki (Kansai Univ.) The algebraic entropies of some multi-term recurrences 15
- 2 Nobutaka Nakazono Consistency around a cuboctahedron property 15
(Tokyo Univ. of Agri. and Tech.)
Nalini Joshi (Univ. of Sydney)
- 3 Yousuke Ohyama (Tokushima Univ.) Asymptotic analysis of the third q -Painlevé equation 15
- 4 Yuuki Tadokoro Nonlinear $O(3)$ sigma model in discrete complex analysis 15
(Nat. Inst. of Tech., Kisarazu Coll.)
Masayoshi Sekiguchi
(Nat. Inst. of Tech., Kisarazu Coll.)
Masaru Kamata
(Nat. Inst. of Tech., Kisarazu Coll.*)

5	<u>Koichi Hiraide</u> (Ehime Univ.) Chihiro Matsuoka (Osaka City Univ.)	Stokes-like phenomena which appear in the dynamics of complex Henon maps	15
6	<u>Masashi Hamanaka</u> (Nagoya Univ.) Claire Gilson (Univ. of Glasgow) Shan-Chi Huang (Nagoya Univ.) Jonathan Nimmo (Univ. of Glasgow)	Soliton solutions of noncommutative anti-self-dual Yang–Mills equations	15
7	<u>Masashi Hamanaka</u> (Nagoya Univ.) Shan-Chi Huang (Nagoya Univ.)	Soliton solutions of domain-wall type to anti-self-dual Yang–Mills equations	15
8	Saburo Kakei (Rikkyo Univ.)	Toda lattice hierarchy and soliton equations on square lattice	15
14:30–16:30			
9	Nicolas Babinet (Univ. de Bourgogne) <u>Taro Kimura</u> (Univ. de Bourgogne)	Quantum curve for supermatrix model and Hirota differential equations	15
10	Hiraku Nakajima (Univ. of Tokyo)	Euler numbers of Hilbert schemes of points on simple surface singularities and quantum dimensions of standard modules of quantum affine algebras	15
11	Hiromu Nakano (Tohoku Univ.) ^b	The structure theorem of Fock modules at positive rational level	15
12	Yuma Mizuno (Tokyo Tech) ^b	Difference equations arising from cluster algebras	15
13	Yasuaki Gyoda (Nagoya Univ.)	Compatibility degree of cluster complexes	15
14	Yuta Nishiyama (Kumamoto Univ.)	Inner products of Macdonald polynomials and its combinatorics	15

September 23rd (Wed)

10:30–11:30 Talk Invited by Infinite Analysis Special Session

Hideya Watanabe (Kyoto Univ.) q quantization

13:15–14:15 Talk Invited by Infinite Analysis Special Session

Yoshihisa Saito (Rikkyo Univ.)^b On elliptic Artin groups
