

2018 The Mathematical Society of Japan

ANNUAL MEETING

Dates: March 18th (Sun)–21st (Wed), 2018

Venue: Graduate School of Mathematical Sciences,
University of Tokyo
3–8–1 Komaba, Meguro-ku, Tokyo 153–8914 Japan

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The Mathematical Society of Japan

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	I Bldg. 11 Rm. 1101	II Bldg. 11 Rm. 1102	III Bldg. 11 Rm. 1106	IV Bldg. 11 Rm. 1108	V Bldg. 12 Rm. 1225	VI Bldg. 13 Rm. 1311	VII Bldg. 13 Rm. 1313	VIII Bldg. 13 Rm. 1321	IX Bldg. 13 Rm. 1331	
18th (Sun)	Geometry 9:15–11:35 14:15–16:35	Topology 9:40–12:00 15:30–18:00	Algebra 9:00–11:45 14:20–17:20	Functional Analysis 14:15–16:15	Statistics and Probability 9:15–12:00 14:15–15:00	Found. of Math. and History of Math. 9:00–11:30 14:10–16:50	Applied Mathematics 9:30–11:45 14:20–16:30	Complex Analysis 9:45–11:45	Functional Equations 9:15–12:00 14:15–16:15	
	Featured Invited Talks					13:00–14:00				
	Invited Talk 16:45–17:45	Invited Talk 14:15–15:15		Invited Talk 16:30–17:30	Invited Talks 15:15–16:15 16:30–17:30	Invited Talk 17:00–18:00	Invited Talk 16:45–17:45	Invited Talk 14:15–15:15	Invited Talk 16:30–17:30	
19th (Mon)	Geometry 9:00–11:45	Topology 9:30–10:30 13:00–14:20	Algebra 9:15–12:00	Functional Analysis 9:30–12:00	Statistics and Probability 9:30–11:30	Found. of Math. and History of Math. 9:00–11:30	Applied Mathematics 9:30–11:45	Complex Analysis 10:00–11:40	Functional Equations 9:15–12:00	
	Invited Talk 13:15–14:15	Invited Talk 10:45–11:45	Invited Talk 13:15–14:15	Invited Talk 13:15–14:15		Invited Talk 13:15–14:15		Invited Talk 13:15–14:15	Invited Talk 13:15–14:15	
	MSJ Prizes Presentation (Lecture Theater) (14:50–15:20)									
	Plenary Talks (Lecture Theater) Spring Prize Winner (15:30–16:30) Takao Yamaguchi (Kyoto Univ.) (16:45–17:45) Official Party (Komaba Faculty House) (18:00–20:00)									
20th (Tue)	Geometry 9:15–11:45 14:15–16:30	Topology 9:20–12:00 15:35–17:45	Algebra 9:15–12:00	Functional Analysis 9:30–12:00 14:15–16:00	Statistics and Probability 10:00–11:40 14:15–15:05	Infinite Analysis 10:00–11:30 14:00–15:30	Applied Mathematics 9:15–11:50 14:15–16:40	Real Analysis 9:00–12:00 14:15–16:15	Functional Equations 9:15–12:00 14:15–16:15	
	Featured Invited Talks					13:00–14:00				
	Invited Talk 16:45–17:45	Invited Talk 14:20–15:20	Invited Talks 14:30–15:30 15:40–16:40 16:50–17:50	Invited Talk 16:15–17:15	Invited Talks 15:20–16:20 16:40–17:40	Invited Talk 15:45–16:45	Invited Talk 16:50–17:50	Invited Talk 16:30–17:30	Invited Talk 16:30–17:30	
21st (Wed)			Algebra 9:15–12:00 14:20–17:00		Statistics and Probability 10:00–12:00	Infinite Analysis 9:30–10:30	Applied Mathematics 9:15–11:55 14:15–16:40	Real Analysis 9:15–12:00 14:15–16:00	Functional Equations 9:15–12:00 14:15–16:15	
	Featured Invited Talks					13:00–14:00				
						Invited Talk 10:45–11:45	Invited Talk 16:50–17:50	Invited Talk 16:15–17:15	Invited Talk 16:30–17:30	

Plenary Talks

March 19th (Mon) Rm. 900, Lecture Theater

Spring Prize Winner	(15:30–16:30)
Takao Yamaguchi (Kyoto Univ.)	Collapsing Riemannian manifolds with boundary	(16:45–17:45)

Featured Invited Talks

March 18th (Sun)

Conference Room VII

Akihisa Tamura (Keio Univ.)	Discrete convex analysis and mathematical economic models	(13:00–14:00)
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Conference Room IX

Mariko Yasugi	On "Takeuti's Proof Theory"	(13:00–14:00)
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March 20th (Tue)

Conference Room III

Junzo Watanabe (Tokai Univ.*)	The Lefschetz properties of Artinian Gorenstein algebras ..	(13:00–14:00)
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Conference Room VII

Guest Talk from the Japan Society for Industrial and Applied Mathematics		
Satoru Iwata (Univ. of Tokyo)	Matroid parity	(13:00–14:00)

Conference Room IX

Kazuo Habiro (Kyoto Univ.)	Category-theoretic structures in 3-dimensional topology ...	(13:00–14:00)
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March 21st (Wed)

Conference Room VII

Toshiyuki Tanisaki (Osaka City Univ.)	Quantized flag manifolds and representations of quantum groups	(13:00–14:00)
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Conference Room IX

Naoki Tanaka (Shizuoka Univ.)	Semigroups of operators and mutational equations in metric spaces	(13:00–14:00)
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Talks Invited by Research Sections and Special Session

March 18th (Sun)

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

Sakaé Fuchino (Kobe Univ.) Set-theoretic reflection principles (17:00–18:00)

Geometry (Conference Room I)

Ryokichi Tanaka (Tohoku Univ.)^b Potential theory on discrete groups and metric embedding
..... (16:45–17:45)

Complex Analysis (Conference Room VIII)

Hiroki Sumi (Kyoto Univ.) Randomness-induced phenomena in random holomorphic dy-
namical systems and their applications (14:15–15:15)

Functional Equations (Conference Room IX)

Award Lecture for the 2017 MSJ Analysis Prize

Yoshitsugu Takei (Doshisha Univ.) On the instanton-type expansions of elliptic functions and
Painlevé transcendents —The final stage of the exact WKB
analysis for Painlevé equations (16:30–17:30)

Functional Analysis (Conference Room IV)

Nobuaki Obata (Tohoku Univ.) Quantum probabilistic methods for spectral analysis of graphs
..... (16:30–17:30)

Statistics and Probability (Conference Room V)

Award Lecture for the 2017 MSJ Analysis Prize

Masayoshi Takeda (Tohoku Univ.) Properties of symmetric Markov processes with tightness
property (15:15–16:15)

Koichiro Takaoka (Hitotsubashi Univ.) The first fundamental theorem of asset pricing: stochastic
integrals and martingale measures (16:30–17:30)

Applied Mathematics (Conference Room VII)

Masashi Shinohara (Shiga Univ.) Classification problems and extremal problems on distance
sets (16:45–17:45)

Topology (Conference Room II)

Daisuke Kishimoto (Kyoto Univ.) Homotopy theory of polyhedral products (14:15–15:15)

March 19th (Mon)

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

Takuya Matsuzaki (Nagoya Univ.) A computer program that solves pre-university mathematical
problems (13:15–14:15)

Algebra (Conference Room III)

Kenichi Shimizu (Shibaura Inst. of Tech.) Recent developments of ‘non-semisimple’ modular tensor cat-
egories (13:15–14:15)

Geometry (Conference Room I)

Hirofumi Sasahira (Kyushu Univ.)* The Seiberg–Witten equations and applications (13:15–14:15)

Complex Analysis (Conference Room VIII)

- Takayuki Koike (Osaka City Univ.) Hermitian metrics on numerically effective line bundles and neighborhoods of complex submanifolds (13:15–14:15)

Functional Equations (Conference Room IX)

Award Lecture for the 2017 MSJ Analysis Prize

- Tetsutaro Shibata (Hiroshima Univ.) Asymptotic analysis of eigenvalue problems for nonlinear elliptic equations and analysis of inverse bifurcation problems (13:15–14:15)

Functional Analysis (Conference Room IV)

- Hideyuki Ishi (Nagoya Univ./JST PRESTO) Gamma-type integrals over convex cones (13:15–14:15)

Topology (Conference Room II)

- Masayuki Asaoka (Kyoto Univ.) Growth rate of the number of periodic points for smooth dynamical systems (10:45–11:45)

March 20th (Tue)

Algebra (Conference Room III)

Award Lecture for the 2018 MSJ Algebra Prize

- Kanetomo Sato (Chuo Univ.) A new cohomology theory for arithmetic schemes and its applications (14:30–15:30)

Award Lecture for the 2018 MSJ Algebra Prize

- Satoshi Naito (Tokyo Tech) Representation theory of quantum affine algebras (15:40–16:40)

Award Lecture for the 2018 MSJ Algebra Prize

- Takayuki Hibi (Osaka Univ.) Monomial ideals and binomial ideals (16:50–17:50)

Geometry (Conference Room I)

- Hideki Miyachi (Osaka Univ.) Toward complex analysis on Teichmüller space (16:45–17:45)

Functional Equations (Conference Room IX)

- Hirokazu Ninomiya (Meiji Univ.) Traveling wave solutions and entire solutions of reaction-diffusion equations (16:30–17:30)

Real Analysis (Conference Room VIII)

- Ryotaro Tanaka (Kyushu Univ.) Geometric techniques in Banach space theory: Challenges to Tingley's problem (16:30–17:30)

Functional Analysis (Conference Room IV)

- Fumio Hiai (Tohoku Univ.) Multivariate matrix/operator means (16:15–17:15)

Statistics and Probability (Conference Room V)

- Kazuki Matsubara (ChuoGakuin Univ.) Pairwise additivity of BIB designs and related combinatorial structures (15:20–16:20)

- Koji Tsukuda (Univ. of Tokyo) Studies on the theory of weak convergences in Hilbert spaces and its applications (16:40–17:40)

Applied Mathematics (Conference Room VII)

- Shuji Yoshikawa (Oita Univ.) Energy method for structure-preserving finite difference schemes (16:50–17:50)

Topology (Conference Room II)

Takefumi Nosaka (Tokyo Tech) Nilpotent studies in 3-dimensional topology (14:20–15:20)

Infinite Analysis (Conference Room VI)

Taro Kimura (Keio Univ.) Quiver gauge theory and quiver W-algebra (15:45–16:45)

March 21st (Wed)

Functional Equations (Conference Room IX)

Tsukasa Iwabuchi (Tohoku Univ.)^b On the ill-posedness for the compressible Navier–Stokes equations (16:30–17:30)

Real Analysis (Conference Room VIII)

Shun Uchida (Waseda Univ.) Solvability of a system describing double-diffusive convection phenomena in some porous medium (16:15–17:15)

Applied Mathematics (Conference Room VII)

Akitoshi Takayasu (Univ. of Tsukuba) Verified computations for solutions of evolution equations with semigroup theory (16:50–17:50)

Infinite Analysis (Conference Room VI)

Hiroshi Naruse (Univ. of Yamanashi) Generalization of Hall–Littlewood function from the view point of Schubert calculus, generating function and application (10:45–11:45)

Foundation of Mathematics and History of Mathematics

March 18th (Sun) Conference Room VI

9:00–11:30

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| 1 | Shotaro Tanaka | * To express fractions into power series by Suida expansion | 15 |
| 2 | Shigeru Masuda (Kyoto Univ.) | Mathematical principles treated in mechanics by Poisson | 15 |
| 3 | Shigeru Masuda (Kyoto Univ.) | Proof of rise of capillary surface by Poisson | 15 |
| 4 | Michiyo Nakane | An introduction of an idea of transformation to Hamilton–Jacobi theory in the beginning of twentieth century | 15 |
| 5 | Toshio Harikae (Osaka Sangyo Univ.) | On ‘Toshoku’ problems in “Shu” | 15 |
| 6 | <u>Katsushi Waki</u> (Yamagata Univ.)
Takuma Tsutihashi (Meiji Univ.)
Kazushi Ahara (Meiji Univ.) | The similarity evaluation of geometric problems in WASAN by NMF | 10 |
| 7 | Mitsuo Morimoto
(Yokkaichi Univ./Sophia Univ.*) | Daily Mathematics in the Taisei Sankei | 15 |
| 8 | Tsukane Ogawa (Yokkaichi Univ.) | Mathematical philosophy of Aida Yasuaki, part 2 | 15 |
| 9 | <u>Takuma Tsuchihashi</u> (Meiji Univ.)
Katsushi Waki (Yamagata Univ.)
Kazushi Ahara (Meiji Univ.) | Automatic tagging to geometric problems in Japanese mathematics (wasan) based on image recognition | 15 |

11:30–12:00 Mathematics History Team Meeting

14:10–16:50

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| 10 | Toshio Suzuki (Tokyo Metro. Univ.) | Non-depth-first search of an AND-OR tree | 15 |
| 11 | <u>Kazuyuki Tanaka</u> (Tohoku Univ.)
Shohei Okisaka (Tohoku Univ.) | On the uniqueness of the eigen-distribution for weighted AND-OR trees | 15 |
| 12 | Yuki Mizusawa (Tokyo Metro. Univ.) | Some results of pseudo Solovay reducibility | 15 |
| 13 | Keita Yokoyama (JAIST) | Indicators, forcing and proof-transformation | 15 |
| 14 | Kohtaro Tadaki (Chubu Univ.) | An event with probability one occurs certainly in quantum mechanics | 15 |
| 15 | <u>Yukinobu Yajima</u> (Kanagawa Univ.)
Yasushi Hirata (Kanagawa Univ.) | Undecidability of the existence of C^* -embedded but not C -embedded subsets in a product of natural numbers | 15 |
| 16 | Toshimichi Usuba (Waseda Univ.) | Products of Lindelöf spaces | 15 |
| 17 | Teruyuki Yorioka (Shizuoka Univ.) | On two combinatorial properties which come from Aronszajn trees | 15 |
| 18 | Diego A. Mejía (Shizuoka Univ.) | Forcing theory and combinatorics of the real line | 15 |
| 19 | Hiroshi Sakai (Kobe Univ.) | Embeddability of uncountable LO into models generated by uncountable indiscernible sequences | 15 |

17:00–18:00 Talk Invited by Section on Foundation and History of Mathematics

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| | Sakaé Fuchino (Kobe Univ.) | Set-theoretic reflection principles | |
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March 19th (Mon) Conference Room VI

9:00–11:30

20	Takashi Oyabu	^b Number; number system, and other 5 talks	5
21	Yoshifumi Ito (Tokushima Univ.*)	Definition of the concept of sets and its existence theorem	15
22	Yoshihito Tanaka (Kyushu Sangyo Univ.)	A predicate extension of the logic of provability	15
23	Nobu-Yuki Suzuki (Shizuoka Univ.)	Constructing uncountably many intermediate predicate logics having disjunction property but lacking existence property	15
24	Ken-etsu Fujita (Gunma Univ.)	The Church–Rosser Theorem and quantitative analysis of witnesses . .	15
25	Takahiro Seki (Niigata Univ.)	Some relevant modal logics characterized by reduced frames	15
26	Taishi Kurahashi (Nat. Inst. of Tech., Kisarazu Coll.)	Provability logics and decompositions of theories	15
27	Masanori Itai (Tokai Univ.)	A model theoretic Rieffel’s theorem of quantum 2-tori	15
28	Shunsuke Okabe (Kobe Univ.)	On widths of automorphism groups on generic structures	15
29	<u>Hiroataka Kikyo</u> (Kobe Univ.) Shunsuke Okabe (Kobe Univ.)	On Hrushovski’s ab initio amalgamation class	15

11:30–12:00 Research Section Assembly**13:15–14:15 Talk Invited by Section on Foundation and History of Mathematics**

	Takuya Matsuzaki (Nagoya Univ.)	A computer program that solves pre-university mathematical problems	
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Algebra

March 18th (Sun) Conference Room III

9:00–11:45

1	Yasutoshi Nomura	[*] Quasi-linear congruences of Apery-like numbers	10
2	Yuta Suzuki (Nagoya Univ.)	On relatively prime amicable pairs	10
3	Shigeru Iitaka (Gakushuin Univ.*)	Ultimate perfect numbers and hyper perfect numbers	10
4	<u>Hajime Kaneko</u> (Univ. of Tsukuba) <u>Makoto Kawashima</u> (Osaka Univ.)	On the number of digit exchanges in the beta expansion of real numbers	10
5	Genki Shibukawa (Osaka Univ.)	Some arithmetic properties of the elliptic Dedekind sums	10
6	Kurt Fischer (Tokuyama Coll. of Tech.)	The Zetafast algorithm to compute L functions to arbitrary precision as fast as the Riemann–Siegel formula	10
7	<u>Ade Irma Suriajaya</u> (RIKEN) <u>Jörn Steuding</u> (Univ. of Würzburg)	An approximate functional equation for the fourth moment of the Riemann zeta function on the critical line	10

8	Shota Inoue (Nagoya Univ.)	Extreme values of Dirichlet L -functions on horizontal line in critical strip	10
9	Masahiro Mine (Tokyo Tech)	The distribution of zeros of the Hurwitz zeta-function on the right side of the critical line	10
10	Tadaaki Igawa (Yamaguchi Univ.)* Makoto Minamide (Yamaguchi Univ.) Jun Furuya (Hamamatsu Univ. School of Medicine) Yoshio Tanigawa	On the number of k -free integers $\leq x$ which are coprime to m	10
11	Debika Banerjee (IISER)* Makoto Minamide (Yamaguchi Univ.) Yoshio Tanigawa	Bounds of double zeta-function	10
12	Masatoshi Suzuki (Tokyo Tech)	On the family of integral operators arising from zeta functions	10
13	Shin-ya Koyama (Toyo Univ.) Ikuya Kaneko (Tsukuba Takezono Higashi Junior High School)	Convergence of Euler products of Selberg zeta functions	10
14:20–17:20			
14	Ryoko Tomiyasu (Yamagata Univ.)	On the infinite families of ternary quadratic forms with the same representations over \mathbb{Z} in Kaplansky conjecture	10
15	Ryoko Tomiyasu (Yamagata Univ.) ^b	Problem on quadratic forms that is required to solve for determination of periodic point sets from their average theta series	10
16	Masataka Ono (Keio Univ.)	Finite multiple zeta values associated with 2-colored rooted trees	10
17	Masataka Ono (Keio Univ.)	Multiple zeta functions associated with 2-colored rooted trees	10
18	Tomoya Machide (Nat. Inst. of Information/JST ERATO)	On an identity involving symmetric sums of regularized multiple zeta-star values	10
19	Maki Nakasuji (Sophia Univ.) Daniel Bump (Stanford Univ.)	The transition matrix of Casselman basis	10
20	Masao Oi (Univ. of Tokyo)	Simple supercuspidal L -packets of quasi-split classical groups	10
21	Kazuhito Kozuka (Miyakonojo Nat. Coll. of Tech.)	p -adic Dedekind–Rademacher sums	10
22	Kazuto Ota (Keio Univ.)	On the rank-part of the Mazur–Tate refined conjecture for modular forms	10
23	Kazuki Yamada (Keio Univ.) Veronika Ertl (Regensburg Univ.)	Comparison of crystalline syntomic and rigid syntomic cohomology for strictly semistable log schemes	10
24	Tetsuya Uematsu (Meijo Univ.)	3-torsion part of the Brauer group of Fermat curves of degree 3	10
25	Genki Koda (Tokyo Univ. of Sci.) Masanari Kida (Tokyo Univ. of Sci.)	Certain Galois extensions whose Galois groups are isoclinic to D_8	10
26	Akinari Hoshi (Niigata Univ.) Ming-chang Kang (Nat. Taiwan Univ.) Aiichi Yamasaki (Kyoto Univ.)	Degree three unramified cohomology groups and Noether’s problem for groups of order 243	10

27	Akinari Hoshi (Niigata Univ.) Ming-chang Kang (Nat. Taiwan Univ.) <u>Aiichi Yamasaki</u> (Kyoto Univ.)	Computation of degree three unramified cohomology groups using GAP	10
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March 19th (Mon) Conference Room III

9:15–12:00

28	<u>Fumitsuna Maruyama</u> Masao Toyozumi (Toyo Univ.) Yozo Deguchi	^b On a certain method for determining the non-singularity of an integral matrix	10
29	Yuki Irie (Chiba Univ.) ^b	p -Saturations of Welter's game and the irreducible representations of symmetric groups	10
30	<u>Fumihito Oda</u> (Kindai Univ.) Yugen Takegahara (Muroran Inst. of Tech.) Tomoyuki Yoshida (Hokusei Gakuen Univ.)	Axiomatic theory of Burnside rings I	10
31	<u>Masahiro Wakatake</u> (Kindai Univ.) Fumihito Oda (Kindai Univ.)	The unit group of a partial Burnside ring of a reducible Coxeter group of type A	10
32	Kazuya Aokage (Ariake Nat. Coll. of Tech.)	Tensor product of the spin representations for the symmetric groups	10
33	Shuhei Kamioka (Kyoto Univ.)	A refinement of generating functions for symmetric plane partitions	10
34	Naoki Genra (Kyoto Univ.)	Coproducts for \mathcal{W} -algebras	10
35	Ryo Fujita (Kyoto Univ.)	Tilting modules in affine highest weight categories and the Arakawa–Suzuki functor	10
36	Ryo Fujita (Kyoto Univ.)	Affine highest weight categories and quantum affine Schur–Weyl duality of Dynkin quiver types	10
37	<u>Taro Sakurai</u> (Chiba Univ.) Shigeo Koshitani (Chiba Univ./Chiba Univ.*)	On characterizations of small block algebras	10
38	Hiroki Sasaki (Shinshu Univ.) [*]	Cohomology rings of block ideals with extraspecial defect groups	10
39	<u>Shigeo Koshitani</u> (Chiba Univ./Chiba Univ.*) Radha Kessar (City, Univ. of London) Markus Linckelmann (City, Univ. of London)	^b Brauer indecomposabilities of the Scott modules	10
40	<u>Shigeo Koshitani</u> (Chiba Univ./Chiba Univ.*) Jürgen Müller (Wuppertal Univ.)	^b A remark on the projective cover of the trivial module	10
41	<u>Shigeo Koshitani</u> (Chiba Univ./Chiba Univ.*) Caroline Lassueur (Kaiserslautern Univ.)	^b Locations of simple modules for finite group algebras in the Auslander–Reiten quivers	10

13:15–14:15 Talk Invited by Algebra Section

Kenichi Shimizu Recent developments of ‘non-semisimple’ modular tensor categories
(Shibaura Inst. of Tech.)

March 20th (Tue) Conference Room III

9:15–12:00

- 42 Takuo Matsuoka Filtration of a stable infinity 1-category 10
- 43 Izuru Mori (Shizuoka Univ.) A categorical characterization of noncommutative projective spaces ... 10
Kenta Ueyama (Hirosaki Univ.)
- 44 Ayako Itaba (Tokyo Univ. of Sci.) 3-dimensional quadratic AS-regular algebras corresponding to elliptic
Masaki Matsuno (Shizuoka Univ.) curves 10
- 45 Ayako Itaba (Tokyo Univ. of Sci.) On some non-projective infinitely generated modules over path algebras
Diego Alejandro Mejía 10
(Shizuoka Univ.)
Teruyuki Yorioka (Shizuoka Univ.)
- 46 Hideyuki Koie (Tokyo Univ. of Sci.) On presentations of Hochschild extension algebras for a class of self-
Tomohiro Itagaki (Tokyo Univ. of Sci.) injective Nakayama algebras 10
Katsunori Sanada (Tokyo Univ. of Sci.)
- 47 Tomohiro Itagaki (Tokyo Univ. of Sci.) Batalin–Vilkovisky algebra structures on the Hochschild cohomology of
self-injective Nakayama algebras 10
- 48 Sota Asai (Nagoya Univ.)* Bricks over preprojective algebras 10
- 49 Tsutomu Nakamura (Okayama Univ.) Bousfield localization and cosupport in derived categories of commuta-
tive Noetherian rings 10
- 50 Hiroki Matsui (Nagoya Univ.) Singular equivalences and reconstruction of singular loci 10
- 51 Toshinori Kobayashi (Nagoya Univ.) Syzygies of Cohen–Macaulay modules and endomorphism ring of the
maximal ideal 10
- 52 Futoshi Hayasaka (Okayama Univ.)* Complete reductions of multigraded modules and normality of mono-
mial ideals 10
- 53 Shinya Kumashiro (Chiba Univ.) When is $R \ltimes I$ an almost Gorenstein local ring? 10
Shiro Goto (Meiji Univ.*)
- 54 Ryotaro Isobe (Chiba Univ.) Characterization of generalized Gorenstein rings 10
Shiro Goto (Meiji Univ.*)
Naoki Taniguchi (Waseda Univ.)
Shinya Kumashiro (Chiba Univ.)

14:15–14:30 Presentation Ceremony for the 2017 MSJ Algebra Prize**14:30–15:30 Award Lecture for the 2018 MSJ Algebra Prize**

Kanetomo Sato (Chuo Univ.) A new cohomology theory for arithmetic schemes and its applications

15:40–16:40 Award Lecture for the 2018 MSJ Algebra Prize

Satoshi Naito (Tokyo Tech) Representation theory of quantum affine algebras

16:50–17:50 Award Lecture for the 2018 MSJ Algebra Prize

Takayuki Hibi (Osaka Univ.) Monomial ideals and binomial ideals

March 21st (Wed) Conference Room III

9:15–12:00

- 55 Hirotaka Higashidaira (Meiji Univ.) On sequentially generalized Cohen–Macaulay bipartite graphs 10
- 56 Akiyoshi Tsuchiya (Osaka Univ.) Gorenstein Fano polytopes arising from perfect graphs 10
Takayuki Hibi (Osaka Univ.)
- 57 Akiyoshi Tsuchiya (Osaka Univ.) Normality and levelness of Cayley sums of lattice polytopes 10
- 58 Kazunori Matsuda (Osaka Univ.) Regularity and h -polynomials of monomial ideals 10
Takayuki Hibi (Osaka Univ.)
- 59 Akihiro Higashitani On generalized F-signatures of Segre product of polynomial rings 10
(Kyoto Sangyo Univ.)
Yusuke Nakajima (Univ. of Tokyo)
- 60 Takayuki Hibi (Osaka Univ.) Existence of regular unimodular triangulations of dilated empty simplices 10
Akihiro Higashitani
(Kyoto Sangyo Univ.)
Koutarou Yoshida (Osaka Univ.)
- 61 Mitsuhiro Miyazaki On the anticanonical level property of a Hibi ring 10
(Kyoto Univ. of Edu.)
- 62 Koji Chinen (Kindai Univ.) Analogs of Mallows–Sloane bound for divisible formal weight enumerators 10
- 63 Norihiro Nakashima Counter examples of Holm’s questions for high order free hyperplane arrangements 10
(Tokyo Denki Univ.)
Takuro Abe (Kyushu Univ.)
- 64 Tatsuya Horiguchi (Osaka Univ.) Hessenberg varieties and hyperplane arrangements 10
Takuro Abe (Kyushu Univ.)
Mikiya Masuda (Osaka City Univ.)
Satoshi Murai (Osaka Univ.)
Takashi Sato (Osaka City Univ.)
- 65 Ayako Kubota (Waseda Univ.) Invariant Hilbert scheme resolution of Popov’s $SL(2)$ -varieties 10
- 66 Jong Myeong Kim (Nagoya Univ.) A freeness criterion for spherical twists 10
- 67 Yoshifumi Tsuchimoto (Kochi Univ.) Non-commutative Kähler projective space: from commutative viewpoint 10
- 14:20–17:00**
- 68 Tetsuya Ando (Chiba Univ.) Semialgebraic variety 10
- 69 Junjiro Noguchi (Univ. of Tokyo*)^b Big Picard Theorem and the Manin–Mumford Conjecture 10
- 70 Momonari Kudo (Kyushu Univ.) Enumerating superspecial curves of genus 4 over prime fields 10
Shushi Harashita
(Yokohama Nat. Univ.)

71	<u>Hayato Senda</u> (Yokohama Nat. Univ.) Momonari Kudo (Kyushu Univ.) Shushi Harashita (Yokohama Nat. Univ.)	Automorphism groups of superspecial curves of genus 4 over \mathbb{F}_{11}	10
72	Taketo Shirane (Ube Nat. Coll. of Tech.)	Splitting graph and the embedded topology of plane curves	10
73	<u>Shinzo Bannai</u> (Ibaraki Nat. Coll. of Tech.) Hiro-o Tokunaga (Tokyo Metro. Univ.) Momoko Yamamoto (Tokyo Metro. Univ.)	Rational points of elliptic surfaces and the topology of cubic-line arrangements	10
74	Katsuhiko Okumura (Waseda Univ.)	SNC log symplectic structures on Fano products	10
75	Norihiko Minami (Nagoya Inst. of Tech.)	On covering by rational varieties	10
76	Kohsuke Shibata (Univ. of Tokyo)	Bound of the multiplicity of complete intersection singularities	10
77	Kenta Hashizume (Kyoto Univ.)	On the minimal model conjecture and the non-vanishing conjecture	10
78	Yoshiaki Fukuma (Kochi Univ.)	On the dimension of global sections of adjoint bundles for polarized manifolds	10
79	Kenta Watanabe (Nihon Univ.)*	On ACM line bundles on polarized K3 surfaces	10
80	Tomohiro Iwami (Kyushu Inst. of Tech.)*	An analogue of Miyaoka–Yau type inequality for extremal contractions of type (IIA) with special regards to the associated third Chern classes	10

Geometry

March 18th (Sun) Conference Room I

9:15–11:35

1	Tetsuya Nagano (Univ. of Nagasaki)	On the existence of the curve to give the inverse linear parallel displacement	15
2	<u>Tsukasa Takeuchi</u> (Keio Univ.) Kiyonori Hosokawa (ORCA Management Organization Co., Ltd.)	Construction of symplectic-Haantjes manifold of certain Hamiltonian systems	10
3	<u>Takayuki Moriyama</u> (Mie Univ.) Takashi Nitta (Mie Univ.)	Some examples of global Poisson structures on S^4	10
4	<u>Takayuki Moriyama</u> (Mie Univ.) Takashi Nitta (Mie Univ.)	Splitting theorem for sheaves of holomorphic k -vectors on complex contact manifolds	10
5	Hiroshi Sawai (Numazu Nat. Coll. of Tech.)	Examples of solvmanifolds without LCK structures	15

12 Geometry

- 6 Masayuki Igarashi (Tokyo Univ. of Sci.)* On Hermite–Liouville structures constructed on the Hopf surface 10
- 7 Satoshi Nakamura (Tohoku Univ.) Hessian of the Ricci Calabi functional 15
- 8 Satoshi Nakamura (Tohoku Univ.) Remarks on modified Ding functional for toric Fano manifolds 10
- 9 Tomoyuki Hisamoto (Nagoya Univ.) Gradient flow of the Ding energy and optimal degeneration of a Fano manifold 15
- 14:15–16:35**
- 10 Shin-ichi Oguni (Ehime Univ.)* On a coarse Cartan–Hadamard theorem 15
- 11 Tomohiro Fukaya (Tokyo Metro. Univ.) New formulation of nonpositively curved spaces from the view point of coarse geometry and its boundary 15
- 12 Tetsu Toyoda (Suzuka Nat. Coll. of Tech.) A generalization of Gromov’s $\text{Cycl}_k(0)$ condition and an intrinsic characterization of five points in a $\text{CAT}(0)$ space 15
- 13 Daisuke Kazukawa (Tohoku Univ.) A new condition for convergence of energies and stability of Ricci curvature bounds 15
- 14 Hiroki Nakajima (Tohoku Univ.)
Takashi Shioya (Tohoku Univ.) Isoperimetric rigidity and distributions of 1-Lipschitz functions 15
- 15 Hiroki Nakajima (Tohoku Univ.) Lipschitz order with an additive error and normal law à la Lévy on the Hamming cubes 10
- 16 Taiki Yamada (Tohoku Univ.)
Jürgen Jost (Max Planck Inst.) The Ricci curvature and the Laplacian on edges of graphs 10
- 17 Ayato Mitsuishi (Fukuoka Univ.)
Takao Yamaguchi (Kyoto Univ.) Obtuse constant and volume of Alexandrov spaces 15

16:45–17:45 Talk Invited by Geometry Section

- Ryokichi Tanaka (Tohoku Univ.)^b Potential theory on discrete groups and metric embedding

March 19th (Mon) Conference Room I

9:00–11:45

- 18 Hirotaka Ebisui (Geomathes Res. Center) Discovery of concurrent, collinear Theorems 15
- 19 Jun O’Hara (Chiba Univ.) Residues and intrinsic volumes of submanifolds of \mathbb{R}^n 15
- 20 Kaho Ohashi (Japan Women’s Univ.) Construction of a metric on the moduli space of Delzant polytopes 15
- 21 Kenzi Satô (Tamagawa Univ.) The existence of orthocenters of simplices of hyperbolic spaces 15
- 22 Yuichiro Taketomi (Hiroshima Univ.) Singularities of the moduli space of left-invariant metrics and the properties of the corresponding metrics 15
- 23 Naohiko Kasuya (Kyoto Sangyo Univ.)
Masamichi Takase (Seikei Univ.) Knots and links of complex tangents 15
- 24 Nobuhiro Innami (Niigata Univ.) The asymptotic behavior of geodesic circles in a 2-torus 15
- 25 Kei Kondo (Yamaguchi Univ.) From Hopf’s curvature pinching conjecture to a differentiable exotic sphere theorem 15
- 26 Toshihiro Shoda (Saga Univ.)
Shin Nayatani (Nagoya Univ.) Metrics on a closed surface of genus two which maximize the first eigenvalue of the Laplacian 15

13:15–14:15 Talk Invited by Geometry Section

Hirofumi Sasahira (Kyushu Univ.)* The Seiberg–Witten equations and applications

March 20th (Tue) Conference Room I

9:15–11:45

- 27 Jong Taek Cho (Chonnam Nat. Univ.) Realizations of some contact metric manifolds as Ricci soliton real
Takahiro Hashinaga hypersurfaces 15
(Kitakyushu Nat. Coll. of Tech.)
Akira Kubo (Hiroshima Shudo Univ.)
Yuichiro Taketomi (Hiroshima Univ.)
Hiroshi Tamaru (Hiroshima Univ.)
- 28 Kazushi Kobayashi (Chiba Univ.) Some remarks on the homological mirror symmetry for tori 15
- 29 Mitsuhiro Itoh (Univ. of Tsukuba) Harmonic manifolds of hypergeometric type and spherical Fourier trans-
Hiroyasu Satoh (Nippon Inst. of Tech.) form 10
- 30 Nobutaka Boumuki (Oita Univ.) Irreducible representations of real semisimple Lie groups related to
homogeneous holomorphic line bundles over elliptic orbits 10
- 31 Jun Watanabe (Univ. of Tokyo)^b Fibered cusp b -pseudodifferential operators and its applications 15
- 32 Norihito Koiso ^b A wave equation of motion of an elastic wire on a Riemannian manifold
(Kyushu Univ./Osaka Univ.*) 15
- 33 Toru Kajigaya (MathAM-OIL) Hamiltonian stability for weighted measure and generalized Lagrangian
Keita Kunikawa (Tohoku Univ.) mean curvature flow 15
- 34 Miyuki Koiso (Kyushu Univ.) Non-uniqueness of closed non-smooth hypersurfaces with constant anisotropic
mean curvature 15
- 35 Miyuki Koiso (Kyushu Univ.) Uniqueness of stable closed non-smooth hypersurfaces with constant
anisotropic mean curvature 10

14:15–16:30

- 36 Makoto Sakaki (Hirosaki Univ.)* Transforms for minimal surfaces in 5-dimensional space forms 10
- 37 Makoto Sakaki (Hirosaki Univ.)* Transforms and a representation formula for non-conformal harmonic
surfaces in the Euclidean 3-space 15
- 38 Kurando Baba (Tokyo Univ. of Sci.) Calibrated equalities and hyperpolar actions 15
Osamu Ikawa (Kyoto Inst. Tech.)
Atsumu Sasaki (Tokai Univ.)
- 39 Kurando Baba (Tokyo Univ. of Sci.) Calibrated inequalities in pseudo-Riemannian geometry and a duality
Osamu Ikawa (Kyoto Inst. Tech.) 10
Atsumu Sasaki (Tokai Univ.)
- 40 Atsufumi Honda ^{*} Isometric deformations of mixed type surfaces 10
(Yokohama Nat. Univ.)
- 41 Taro Kimura Classification of Cartan embeddings which are austere submanifolds
(Nat. Inst. of Tech., Tsuruoka Coll.) 15
Katsuya Mashimo (Hosei Univ.)

- 42 Osamu Ikawa (Kyoto Inst. Tech.) Lagrangian Floer homology of two real forms in a complex flag manifold
 Hiroshi Iriyeh (Ibaraki Univ.) 15
 Takayuki Okuda (Hiroshima Univ.)
 Takashi Sakai (Tokyo Metro. Univ.)
 Hiroyuki Tasaki (Univ. of Tsukuba)
- 43 Yohei Komori (Waseda Univ.) Construction of pseudo-Anosov automorphisms whose dilatations are
 2-Salem numbers 15
- 16:45–17:45 Talk Invited by Geometry Section**
 Hideki Miyachi (Osaka Univ.) Toward complex analysis on Teichmüller space

Complex Analysis

March 18th (Sun) Conference Room VIII

9:45–11:45

- 1 Shigeyoshi Owa (Yamato Univ.)* On univalences for Alexander type integrals 15
 Hitoshi Saitoh
 (Gunma Nat. Coll. of Tech.)
 Janusz Sokol (Univ. of Rzeszow)
 Mamoru Nunokawa (Gunma Univ.*)
- 2 Kiyoki Tanaka (Daido Univ.)^b Toeplitz operators on the polyharmonic Bergman space 15
- 3 Ryosuke Yamazaki The realization problem for Jørgensen numbers 15
 (Gakushuin Boys' Senior High School)
 Yasushi Yamashita
 (Nara Women's Univ.)
- 4 Naotaka Kajino (Kobe Univ.) Weyl's eigenvalue asymptotics for the Laplacian on circle packing limit
 sets of certain Kleinian groups 15
- 5 Tomoshige Yukita (Waseda Univ.) Construction of infinite series of ideal hyperbolic Coxeter 4-polytopes
 whose growth rates are Perron numbers. 15
- 6 Masahiro Yanagishita Construction of p -Weil–Peterson metric on p -integrable Teichmüller
 space 15
 (Yamaguchi Univ.)
- 7 Dounnu Sasaki (Waseda Univ.) The denseness problem of geodesic currents and subset currents 15

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

- Hiroki Sumi (Kyoto Univ.) Randomness-induced phenomena in random holomorphic dynamical
 systems and their applications

March 19th (Mon) Conference Room VIII

10:00–11:40

- 8 Takahiro Inayama (Univ. of Tokyo) L^2 estimates and vanishing theorems for holomorphic vector bundles equipped with singular Hermitian metrics 15
- 9 Genki Hosono (Univ. of Tokyo) On recent topics on L^2 extension theorems 15
- 10 Sachiko Hamano (Osaka City Univ.) Variation of the \mathbf{a} -span of an open Riemann surface and pseudoconvexity
Masakazu Shiba (Hiroshima Univ.*) 15
Hiroshi Yamaguchi (Shiga Univ.*)
- 11 Akio Kodama (Kanazawa Univ.*)^b A localization principle for biholomorphic mappings between the Fock–Bargmann–Hartogs domains 15
- 12 Masataka Tomari (Nihon Univ.)* maximal ideal cycle and fundamental cycle of normal two dimensional
Tadashi Tomaru (Gunma Univ.*) double points 15
- 13 Katsusuke Nabeshima An algorithm for computing integral numbers in a ring of convergent
(Tokushima Univ.) power series II 10
Shinichi Tajima (Univ. of Tsukuba)

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

- Takayuki Koike (Osaka City Univ.) Hermitian metrics on numerically effective line bundles and neighborhoods of complex submanifolds

Functional Equations

March 18th (Sun) Conference Room IX

9:15–12:00

- 1 Mostafa Adimy (Univ. of Lyon) Analysis of a mathematical model for hematopoietic stem cells with a
Abdenasser Checkroun nonlocal term and time delay 10
(Univ. of Tlemcen)
Toshikazu Kuniya (Kobe Univ.)
- 2 Hideaki Izumi (Chiba Inst. of Tech.) Solving functional equations by using dimensioned numbers 10
- 3 Hideaki Matsunaga (Osaka Pref. Univ.) Oscillation criteria for a nonlinear delay difference equation by phase
Doi Pati plane analysis 10
Sugie Jitsuro (Shimane Univ.)
- 4 Yasuhiro Fujita (Univ. of Toyama) On a Hamilton–Jacobi flow starting from a pathological function 10
Nao Hamamuki (Hokkaido Univ.)
Antonio Siconolfi
(Sapienza Univ. of Rome)
Norikazu Yamaguchi (Univ. of Toyama)
- 5 Shingo Takeuchi Applications of generalized trigonometric functions to a nonlocal bound-
(Shibaura Inst. of Tech.) ary value problem 10

6	<u>Kodai Fujimoto</u> (Osaka Pref. Univ.) Naoto Yamaoka (Osaka Pref. Univ.)	Oscillation constants for second-order nonlinear differential equations with $p(t)$ -Laplacian	10
7	<u>Ryuji Kajikiya</u> (Saga Univ.) Inbo Sim (Univ. of Ulsan) Satoshi Tanaka (Okayama Univ. of Sci.)	A complete classification of bifurcation diagrams for a class of (p, q) -Laplace equations	10
8	<u>Masakazu Onitsuka</u> (Okayama Univ. of Sci.) Tanaka Satoshi (Okayama Univ. of Sci.)	Box dimension of solution curves for a class of two-dimensional linear differential systems	10
9	<u>Satoshi Tanaka</u> (Okayama Univ. of Sci.) Masakazu Onitsuka (Okayama Univ. of Sci.)	Characteristic equation for autonomous planar half-linear differential systems	10
10	Junya Nishiguchi (Tohoku Univ.)	On global attractors for dynamical systems without natural metrics	10
11	Yumiko Takei (Kobe Univ.)	On the expression of Voros coefficients for hypergeometric differential equations with two variables in terms of the topological recursion and its applications	10
12	<u>Saburoou Saitoh</u> (Gunma Univ.*/Inst. of Reproducing Kernels) Haydar Akca (Abu Dhabi Uni.) Sandra Pinelas (Military Acad. Portugal)	* Incompleteness of the theory of differential equations and open problems	10
13	<u>Saburoou Saitoh</u> (Gunma Univ.*/Inst. of Reproducing Kernels) Tsutomu Matsuura (Gunma Univ.)	* Division by zero calculus and singular integrals	10
14:15–16:15			
14	Takanobu Hara (Hokkaido Univ./Tokyo Metro. Univ.)	A Carleson-type estimate for p -superharmonic functions	10
15	<u>Xiaojing Liu</u> (Ibaraki Univ.) Toshio Horiuchi (Ibaraki Univ.)	The equivalences among p -capacity, p -Laplace-capacities and Hausdorff measure	10
16	Albert Rodríguez Mulet (Hokkaido Univ.)	Eigenfrequencies of a thin straight elastic body	10
17	Takashi Furuya (Nagoya Univ.)	An application of the factorization method for some inverse acoustic scattering problems	10
18	Kimie Nakashima (Tokyo Univ. of Marine Sci. and Tech.)	Multiple existence of indefinite nonlinear diffusion problem in population genetics	10
19	<u>Kazuhiro Oeda</u> (Waseda Univ.) Kousuke Kuto (Univ. of Electro-Comm.)	Classification of steady states to a prey-predator model with population flux by attractive transition	10
20	Yasuhito Miyamoto (Univ. of Tokyo)	A limit equation and bifurcation diagrams of semilinear elliptic equations with general supercritical growth	10
21	<u>Yasuhito Miyamoto</u> (Univ. of Tokyo) Tohru Wakasa (Kyushu Inst. of Tech.)	Exact eigenvalues and eigenfunctions for a one-dimensional Gel'fand problem	10

- 22 Kenichiro Umezū (Ibaraki Univ.) Loop components of nontrivial nonnegative solutions for indefinite concave-convex problems 10
Uriel Kaufmann
(Univ. Nacional de Córdoba)
Humberto Ramos Quoirin
(Univ. de Santiago de Chile)

16:30–17:30 Award Lecture for the 2017 MSJ Analysis Prize

- Yoshitsugu Takei (Doshisha Univ.) On the instanton-type expansions of elliptic functions and Painlevé transcendents —The final stage of the exact WKB analysis for Painlevé equations

March 19th (Mon) Conference Room IX

9:15–12:00

- 23 Yohei Toyota (Osaka Univ.) The behavior of blow-up solutions for mean field equation with multi-intensities 10
Takashi Suzuki (Osaka Univ.)
- 24 Daisuke Naimen Blow-up analysis for sign-changing radial solutions in Trudinger–Moser critical equations in \mathbb{R}^2 10
(Muroran Inst. of Tech.)
Massimo Grossi
(Sapienza Univ. of Roma)
- 25 Aya Ishizeki (Chiba Univ.) Decomposition of generalized O’Hara’s energies 10
Takeyuki Nagasawa (Saitama Univ.)
- 26 Yohei Sato (Saitama Univ.) Infinitely many solutions for a nonlinear Schrödinger equation with general nonlinearity 10
Shibata Masataka (Tokyo Tech)
- 27 Shota Tateyama (Tohoku Univ.) Fully nonlinear parabolic equations with unbounded ingredients 10
Shigeaki Koike (Tohoku Univ.)
Andrzej Świąch (Georgia Tech)
- 28 Shota Tateyama (Tohoku Univ.) The Phragmén–Lindelöf theorem for fully nonlinear parabolic equations with unbounded ingredients 10
- 29 Naoto Kajiwara (Univ. of Tokyo) Time periodic solutions on real interpolation spaces and its applications to some electrophysiological models 10
Matthias Hieber (TU Darmstadt)
Klaus Kress (TU Darmstadt)
Patrick Tolksdorf (TU Darmstadt)
- 30 Naoto Kajiwara (Univ. of Tokyo) Time periodic solutions to the bidomain equations subject to arbitrary large force 10
Yoshikazu Giga (Univ. of Tokyo)
Klaus Kress (TU Darmstadt)
- 31 Masaaki Mizukami The parabolic-elliptic Keller–Segel case as a limit of the fully parabolic Keller–Segel system 10
(Tokyo Univ. of Sci.)
- 32 Xinru Cao (Paderborn Univ.) Global existence and stabilization in a 3D two-species Keller–Segel–Stokes system with competitive kinetics 10
Shunsuke Kurima (Tokyo Univ. of Sci.)
Masaaki Mizukami
(Tokyo Univ. of Sci.)
- 33 Sachiko Ishida (Chiba Univ.) Finite-time blow-up in a fully parabolic Keller–Segel system with degenerate diffusion 10
Tomomi Yokota (Tokyo Univ. of Sci.)
Takahiro Hashira (Tokyo Univ. of Sci.)

- 34 Takayoshi Ogawa (Tohoku Univ.) Unboundedness of solutions to a degenerate drift-diffusion equation
 Hiroshi Wakui (Tohoku Univ.) equation with the mass critical exponent and estimates of the concentration quantity of radially symmetric solutions 10

13:15–14:15 Award Lecture for the 2017 MSJ Analysis Prize

- Tetsutaro Shibata (Hiroshima Univ.) Asymptotic analysis of eigenvalue problems for nonlinear elliptic equations and analysis of inverse bifurcation problems

March 20th (Tue) Conference Room IX

9:15–12:00

- 35 Kenta Nakamura (Kyushu Univ.) The existence and properties of a solution to the p -Sobolev flow 10
 Masashi Misawa (Kumamoto Univ.)
- 36 Lorenzo Cavallina (Tohoku Univ.) On the shape of a two-phase heat conductor with a surface of the
 Rolando Magnanini (Univ. of Florence) constant flow property 10
 Shigeru Sakaguchi (Tohoku Univ.)
- 37 Takashi Kagaya (Tokyo Tech) A singular limit problem of Allen–Cahn equation with Neumann boundary condition on non-convex domains 10
- 38 Nao Hamamuki (Hokkaido Univ.) On a dynamic boundary condition for singular degenerate parabolic
 Yoshikazu Giga (Univ. of Tokyo) equations in a half space 10
- 39 Yukihiro Seki (Kyushu Univ.) On blow-up of solutions for harmonic map heat flow with values in a
 Paweł Biernat (Bonn Univ.) sphere 10
- 40 Hiroshi Matsuzawa A free boundary problem for the Fisher-KPP equation with a moving
 (Numazu Nat. Coll. of Tech.) boundary 10
- 41 Yūki Naito (Ehime Univ.) Asymptotic behavior of global solutions for semilinear heat equations with slowly decaying initial data 10
- 42 Kyohei Itakura (Kobe Univ.) Spectral theory for repulsive Hamiltonians 10
- 43 Wataru Ichinose (Shinshu Univ.) The Feynman path integrals of continuous quantum measurements and the non-self-adjoint Schrödinger equations 10
- 44 Hironori Michihisa (Hiroshima Univ.) Diffusive structures and wave effects of damped wave equations 10
- 45 Naofumi Mori (Fukuoka Inst. of Tech.) The S & K mixed condition for symmetric hyperbolic systems with non-symmetric relaxations 10
- 46 Kenta Nakamura (Kyushu Univ.) Asymptotic stability of rarefaction waves for a model system of hyperbolic balance laws 10
 Tohru Nakamura (Kumamoto Univ.)
 Shuichi Kawashima (Kyushu Univ.)
- 47 Motohiro Sobajima Life-span of blowup solutions to semilinear wave equation with space-dependent critical damping 10
 (Tokyo Univ. of Sci.)
 Masahiro Ikeda (RIKEN/Keio Univ.)

14:15–16:15

- 48 Takayuki Niimura (Hokkaido Univ.) Attractors and their stability with respect to rotational inertia for a nonlocal extensible beam equation 10

- 49 Masahiro Ikeda (RIKEN/Keio Univ.) Time decay estimates for the linear damped wave equation and the critical exponent for the semilinear problem with slowly decaying data
Yuta Wakasugi (Ehime Univ.)
Inui Takahisa (Tokyo Univ. of Sci.)
Mamoru Okamoto (Shinshu Univ.) 10
- 50 Masahiro Ikeda (RIKEN/Keio Univ.) Life-span of solutions to semilinear wave equation with time-dependent critical damping 10
Motohiro Sobajima
(Tokyo Univ. of Sci.)
- 51 Natsumi Yoshida (Ritsumeikan Univ.) Large time behavior of solutions toward a multiwave pattern to the Cauchy problem for the dissipative wave equation with partially linearly degenerate flux 10
- 52 Natsumi Yoshida (Ritsumeikan Univ.) Global asymptotic stability of the rarefaction waves for a scalar conservation law with nonlinear viscosity 10
Akitaka Matsumura (Osaka Univ.*)
- 53 Yuichiro Kawahara Scattering problem for the fourth order nonlinear Schrödinger equation 10
(Doshisha Junior and Senior High School)
Nakao Hayashi (Osaka Univ.)
Pavel I. Naumkin (UNAM)
- 54 Satoshi Masaki (Osaka Univ.) Long range scattering for nonlinear Schrödinger equation with repulsive delta potential 10
Jason Murphy
(Missouri Univ. of Sci. and Tech.)
Jun-ichi Segata (Tohoku Univ.)
- 55 Hayato Miyazaki Nonexistence of scattering and modified scattering states for nonlinear Schrödinger equations with critical homogeneous nonlinearity 10
(Tsuyama Nat. Coll. of Tech.)
Satoshi Masaki (Osaka Univ.)
- 56 Sojiro Murai * Strichartz and scattering for magnetic Schrödinger equations in exterior domain 10
(Tokyo Metropolitan Coll. of Indus. Tech.)

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

- Hirokazu Ninomiya (Meiji Univ.) Traveling wave solutions and entire solutions of reaction-diffusion equations

March 21st (Wed) Conference Room IX

9:15–12:00

- 57 Ikkei Shimizu (Kyoto Univ.) Remarks on local well-posedness of Schrödinger map equation 10
- 58 Mamoru Okamoto (Shinshu Univ.) Ill-posedness of the Cauchy problem for the fractional Schrödinger equation 10
- 59 Daisuke Sakoda (Osaka Univ.) Small data global existence for a quadratic derivative nonlinear Schrödinger system in two space dimensions 10
Hideaki Sunagawa (Osaka Univ.)
- 60 Hiroyuki Hirayama (Univ. of Miyazaki) Well-posedness for the Zakharov–Kuznetsov–Burgers equation in two space dimensions 10
- 61 Ikki Fukuda (Hokkaido Univ.) Second asymptotic profile for the generalized KdV–Burgers equation 10
- 62 Shota Sakamoto (Kyoto Univ.) Solution to the Boltzmann equation in velocity-weighted Chemin–Lerner type spaces 10
Duan Renjun
(Chinese Univ. of Hong Kong)

- 63 Tetu Makino (Yamaguchi Univ.)* On axisymmetric solutions of the Einstein–Euler equations 10
- 64 Itsuko Hashimoto (Kansai Univ./Osaka City Univ.) Asymototic behavior toward nonlinear waves for radially symmetric solutions of multi-dimensional Burgers equation 10
Akitaka Matsumura (Osaka Univ.)
- 65 Yusuke Ishigaki (Kyushu Univ.) Global existence of solutions of the compressible viscoelastic fluid around parallel flow 10
- 66 Keiichi Watanabe (Waseda Univ.) Maximal regularity of compressible-incompressible two-phase flows with phase transitions 10
- 67 Yoshihiro Shibata (Waseda Univ.) Free boundary problem with surface tension 10
- 68 Yoshihiro Shibata (Waseda Univ.) Global well-posedness for a \mathbb{Q} tensor model of Incompressible Nematic Liquid Crystals in \mathbb{R}^N 10
- 69 Kazuyuki Tsuda (Osaka Univ.) Time decay estimate with diffusive property and smoothing effect for Takayuki Kobayashi (Osaka Univ.) solution to the compressible Navier–Stokes–Korteweg system 10
- 14:15–16:15**
- 70 Nobu Kishimoto (Kyoto Univ.) Global mild solution to Navier–Stokes equations with partial hyperviscosity 10
Yoshitaka Saiki (Hitotsubashi Univ.)
Kengo Nakai (Univ. of Tokyo)
Yoneda Tsuyoshi (Univ. of Tokyo)
- 71 Tatsu-Hiko Miura (Univ. of Tokyo) On singular limit equations for the Navier–Stokes equations in moving thin domains 10
- 72 Yasunori Maekawa (Kyoto Univ.) On stability of physically reasonable solutions to the two-dimensional Navier–Stokes equations 10
- 73 Kohei Nakao (Shinshu Univ.) Beale–Kato–Majda type extension criterion of smooth solutions to the Yasushi Taniuchi (Shinshu Univ.) Navier–Stokes equations in three dimensional domains 10
- 74 Hideo Kozono (Waseda Univ.)* A remark on Liouville-type theorem for the nonstationary Navier–Stokes equations in two dimensional domains 10
Yutaka Terasawa (Nagoya Univ.)
Yuta Wakasugi (Ehime Univ.)
- 75 Akira Okada (Kyoto Univ.) Spatial analyticity of solutions to the Navier–Stokes equations with Hideo Kozono (Waseda Univ.) initial data in homogeneous Besov spaces 10
Senjo Shimizu (Kyoto Univ.)
- 76 Takahiro Okabe (Hiroasaki Univ.) Remark on the strong solvability of the Navier–Stokes equations in the Youhei Tsutsui (Shinshu Univ.) weak L^n space 10
- 77 Hiroyuki Tsurumi (Waseda Univ.) Solutions of the stationary Navier–Stokes equations in homogeneous Triebel–Lizorkin spaces 10
- 78 Hiroyuki Tsurumi (Waseda Univ.) Ill-posedness of the stationary Navier–Stokes equations in homogeneous Besov spaces 10
- 16:30–17:30 Talk Invited by Functional Equations Section**
- Tsukasa Iwabuchi (Tohoku Univ.)^b On the ill-posedness for the compressible Navier–Stokes equations

Real Analysis

March 20th (Tue) Conference Room VIII

9:00–12:00

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|----|--|---|----|
| 1 | Toshiharu Kawasaki
(Nihon Univ./Tamagawa Univ.) | On the principal value of Henstock–Kurzweil integral | 15 |
| 2 | Aoi Honda (Kyushu Inst. of Tech.)
Yoshiaki Okazaki
(Fuzzy Logic Systems Inst.) | Weak L_p space $L^{p,\infty}$ for quasi-subadditive monotone measure | 15 |
| 3 | Toshiaki Murofushi (Tokyo Tech)
Naoki Enomoto (Tokyo Tech) | Conditions for the strong form of the Egorov theorem in non-additive measure theory | 15 |
| 4 | Fumiaki Kohsaka (Tokai Univ.) | The proximal point algorithm for convex functions in complete CAT(1) spaces | 15 |
| 5 | Shin-ya Matsushita (Akita Pref. Univ.) | On the convergence of an operator splitting method | 15 |
| 6 | Koji Aoyama (Chiba Univ.) | Strongly quasi-nonexpansive mappings, II | 15 |
| 7 | Sachiko Atsushiba
(Univ. of Yamanashi) | Weak and strong convergence theorems for a sequence of nonlinear operators | 15 |
| 8 | Tomonari Suzuki
(Kyushu Inst. of Tech.) | Two topologies on ν -generalized metric spaces | 15 |
| 9 | Yukino Tomizawa
(Niigata Inst. of Tech.) | Geometric constants of $\pi/2$ -rotation invariant norms | 15 |
| 10 | Ryoichi Kunisada (Waseda Univ.) ^b | Summability methods and Fourier analysis on \mathbb{R}^\times | 15 |
| 11 | Takeshi Iida
(Fukushima Nat. Coll. of Tech.) | The dual inequality of the boundedness for the Hardy–Littlewood maximal operator and the fractional integrals | 15 |

14:15–16:15

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|----|---|--|----|
| 12 | Ryutaro Arai (Ibaraki Univ.)
Eiichi Nakai (Ibaraki Univ.) | Compact commutators of Calderón–Zygmund and generalized fractional integral operators with a function in Campanato spaces on generalized Morrey spaces | 15 |
| 13 | Minglei Shi (Ibaraki Univ.)
Eiichi Nakai (Ibaraki Univ.) | Commutators of generalized fractional integral operators on Orlicz spaces | 15 |
| 14 | Gaku Sadasue (Osaka Kyoiku Univ.)
Eiichi Nakai (Ibaraki Univ.) | Commutators of fractional integrals on martingale Morrey spaces | 15 |
| 15 | Tsukasa Iwabuchi (Tohoku Univ.) [*]
Koichi Taniguchi (Chuo Univ.)
Tokio Matsuyama (Chuo Univ.) | Besov spaces generated by the Dirichlet Laplacian | 15 |
| 16 | Koichi Taniguchi (Chuo Univ.)
Tsukasa Iwabuchi (Tohoku Univ.)
Tokio Matsuyama (Chuo Univ.) | Bilinear estimates in Besov spaces on domains | 15 |

- 17 Koichi Taniguchi (Chuo Univ.) Besov spaces generated by Schrödinger operators 15
 Tsukasa Iwabuchi (Tohoku Univ.)
 Tokio Matsuyama (Chuo Univ.)
- 18 Tomoya Kato (Osaka Univ.) A remark on the Schrödinger operator on Wiener amalgam spaces ... 15
 Naohito Tomita (Osaka Univ.)

16:30–17:30 Talk Invited by Real Analysis Section

- Ryotaro Tanaka (Kyushu Univ.) Geometric techniques in Banach space theory: Challenges to Tingley’s problem

March 21st (Wed) Conference Room VIII

9:15–12:00

- 19 Masaaki Mizukami (Tokyo Univ. of Sci.) The parabolic-elliptic chemotaxis case as a limit of the fully parabolic chemotaxis system with signal-dependent sensitivity 15
- 20 Shunsuke Kurima (Tokyo Univ. of Sci.) Vanishing viscosity for a Cahn–Hilliard type system on unbounded domains 15
- 21 Kosuke Kita (Waseda Univ.) Some threshold property for a reaction diffusion system arising from a nuclear reactor model 15
 Mitsuharu Ôtani (Waseda Univ.)
 Hiroki Sakamoto (Hitachi-GE Nuclear Energy, Ltd.)
- 22 Yutaka Tsuzuki (Hiroshima Shudo Univ.) Existence for Vlasov–Poisson equations with angle error in magnetic field in a half-space 15
- 23 Taishi Motoda (Kyoto Univ. of Edu.) Time periodic solutions of Cahn–Hilliard system with dynamic boundary conditions 15
- 24 Ryota Nakayashiki (Chiba Univ.) Kobayashi–Warren–Carter system subject to quasi-linear diffusions and dynamic boundary conditions 15
- 25 Hiroshi Watanabe (Oita Univ.) Solvability of degenerate parabolic-parabolic systems 15
- 26 Makoto Nakamura (Yamagata Univ.) On the Cauchy problem of a semilinear diffusion equation in an expanding space 10
 Yuya Sato (Yamagata Univ.)
- 27 Makoto Nakamura (Yamagata Univ.) Remarks on the derivation of Navier–Stokes equations and elastic wave equations in uniform and isotropic spacetimes 10
- 28 Yoshikazu Giga (Univ. of Tokyo) Analyticity of the Stokes semigroup in BMO 10
 Martin Bolkart (TU Darmstadt)
 Takuya Suzuki (Adv. Simulation Tech. of Mechanics R&D, Co., Ltd.)

14:15–16:00

- 29 Takeshi Fukao (Kyoto Univ. of Edu.) A strict separation property from pure phases for GMS model with logarithmic potential 15
- 30 Noriaki Yamazaki (Kanagawa Univ.) Quasi-variational evolution equations governed by double time-dependent subdifferentials 15
 Nobuyuki Kenmochi (Univ. of Warsaw)
 Ken Shirakawa (Chiba Univ.)
- 31 Akio Ito ^b Evolution inclusion on a real Hilbert space with quasi-variational structure for inner product —Time-dependent convex functions— 15

23 Real Analysis / Functional Analysis

- 32 Ken Shirakawa (Chiba Univ.) A gradient system based on an anisotropic image processing 15
- 33 Kota Kumazaki (Tomakomai Nat. Coll. of Tech.) Solvability of a free boundary problem describing moisture swelling process in porous materials 15
- 34 Toyohiko Aiki (Japan Women's Univ.) Existence of a weak solution to a free boundary problem describing adsorption process 15

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

- Shun Uchida (Waseda Univ.) Solvability of a system describing double-diffusive convection phenomena in some porous medium

Functional Analysis

March 18th (Sun) Conference Room IV

14:15–16:15

- 1 Saburoou Saitoh * What are reproducing kernels? 15
(Gunma Univ.* / Inst. of Reproducing Kernels)
Tsutomu Matsuura (Gunma Univ.)
Yoshihiro Sawano (Tokyo Metro. Univ.)
- 2 Saburoou Saitoh * General integral transforms by the concept of generalized reproducing kernels 15
(Gunma Univ.* / Inst. of Reproducing Kernels)
Tsutomu Matsuura (Gunma Univ.)
Yoshihiro Sawano (Tokyo Metro. Univ.)
- 3 Takashi Aoki (Kindai Univ.) Linear continuous operators acting on the space of entire functions of a given order 15
Ryuichi Ishimura (Chiba Univ.)
Daniele C. Struppa (Chapman Univ.)
Shofu Uchida (Kindai Univ.)
- 4 Yoritaka Iwata (Tokyo Tech) Module over the Banach algebra defined by the logarithmic representation of infinitesimal generators 15
- 5 Fumio Hiroshima (Kyushu Univ.) Mass renormalization in the Nelson model 12
Susumu Osawa (Kyushu Univ.)
- 6 Fumio Hiroshima (Kyushu Univ.) Renormalized Gibbs measures associated with the Nelson model 15
- 7 Kiyoomi Kataoka (Univ. of Tokyo) On generalized eigenvalues of an operator related to Kuramoto conjecture 15
Yu Mada (Univ. of Tokyo)

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

- Nobuaki Obata (Tohoku Univ.) Quantum probabilistic methods for spectral analysis of graphs

March 19th (Mon) Conference Room IV

9:30–12:00

- 8 Junsei Watanabe (Tokyo Gakugei Univ.) * Functional analytic viewpoints in computational linguistics of translated literary works 15
- 9 Shizuo Miyajima (Tokyo Univ. of Sci.) Characterization of closed balls via metric projections 10
Isao Saito (Tokyo Univ. of Sci.)
- 10 Sin-Ei Takahasi (Yamagata Univ.)* Semigroup operations distributed by the ordinary multiplication or
Hiroyuki Takagi (Shinshu Univ.) addition on the real numbers 15
Takeshi Miura (Niigata Univ.)
Hirokazu Oka (Ibaraki Univ.)
- 11 Osamu Hatori (Niigata Univ.) Surjective isometries on Banach algebras of Lipschitz maps 15
- 12 Nobukazu Shimeno (Kwansei Gakuin Univ.) The hypergeometric function of type A and the Lauricella hypergeometric series 15
Yuichi Tamaoka (Kwansei Gakuin Univ.)
- 13 Hiroshi Oda (Takushoku Univ.) Spherical functions for fine K -types 15
Nobukazu Shimeno (Kwansei Gakuin Univ.)
- 14 Atsumu Sasaki (Tokai Univ.) A Cartan decomposition for spherical homogeneous spaces of reductive type 15
- 15 Taito Tauchi (Univ. of Tokyo)^b Multiplicity of a degenerate principal series for homogeneous spaces with infinite orbits 15
- 16 Minoru Itoh (Kagoshima Univ.) A description of an invariant theory using the notion of wreath algebra with trace 15

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

- Hideyuki Ishi Gamma-type integrals over convex cones
(Nagoya Univ./JST PRESTO)

March 20th (Tue) Conference Room IV

9:30–12:00

- 17 Yasuo Watatani (Kyushu Univ.)* A computation of the dimension group for the self-similar map given
Tsuyoshi Kajiwara (Okayama Univ.) by the tent map 15
- 18 Kengo Matsumoto (Joetsu Univ. of Edu.) * Ruelle C^* -algebras associated with Smale spaces and bilateral Cuntz–Krieger algebras 15
- 19 Hiroyuki Osaka (Ritsumeikan Univ.) Stable rank for crossed products by actions of finite groups on C^* -algebras 15
- 20 Kei Hasegawa (Kyushu Univ.) Boundary rigidity for free product C^* -algebras 15
- 21 Yusuke Sawada (Nagoya Univ.) The affine property of quasi-free states on self-dual CAR algebras 15
- 22 Takuya Takeishi (Kyoto Univ.) Reconstructing the Bost–Connes semigroup actions from K -theory 15
- 23 Toshihiko Masuda (Kyushu Univ.) Tannaka–Kreĭn–Woronowicz duality from the viewpoint of Q -systems 15

25 Statistics and Probability

- 24 Yusuke Isono (Kyoto Univ.) Unique prime factorization for infinite tensor product factors 15
- 25 Narutaka Ozawa (Kyoto Univ.) Finite-dimensional representations constructed from random walks ... 15
- 14:15–16:00**
- 26 Masaru Nagisa (Chiba Univ.) Some operator norm inequalities 15
- 27 Junichi Fujii (Osaka Kyoiku Univ.) Graphical approach to Hopf algebras 15
- 28 Masayuki Fujimoto (Osaka Kyoiku Univ.) Mixed Schwarz inequalities via the matrix geometric mean 10
Yuki Seo (Osaka Kyoiku Univ.)
- 29 Yuki Seo (Osaka Kyoiku Univ.) A weighted mixed Schwarz operator inequality via the geometric operator mean 10
Masayuki Fujimoto (Osaka Kyoiku Univ.)
- 30 Takeaki Yamazaki (Toyo Univ.) The Karcher equation, relative operator entropy and the Ando–Hiai inequality 15
- 31 Shuhei Wada (Nat. Inst. of Tech., Kisarazu Coll.) When does Ando–Hiai inequality hold? 10
- 32 Hiroaki Tohyama (Maebashi Inst. of Tech.) Some relations among the n -th relative operator entropies and the n -th operator divergences 15
Hiroshi Isa (Maebashi Inst. of Tech.)
Eizaburou Kamei
Masayuki Watanabe (Maebashi Inst. of Tech.)
- 16:15–17:15 Talk Invited by Functional Analysis Section**
- Fumio Hiai (Tohoku Univ.) Multivariate matrix/operator means

Statistics and Probability

March 18th (Sun) Conference Room V

9:15–12:00

- 1 Kazutoshi Yamazaki (Kansai Univ.) Fluctuation theory for level-dependent Lévy processes 15
Irmína Czarna (Univ. of Wrocław)
Jose-Luis Perez (Centro de Investigación en Matemáticas)
Tomasz Rolski (Univ. of Wrocław)
- 2 Kei Noba (Kyoto Univ.) On optimal periodic dividend strategies for Lévy risk processes 15
José-Luis Pérez (CIMAT)
Kazutoshi Yamazaki (Kansai Univ.)
Kouji Yano (Kyoto Univ.)

3	<u>Yuichi Shiozawa</u> (Osaka Univ.) <u>Jian Wang</u> (Fujian Normal Univ.)	Upper rate functions of Brownian motion type for symmetric jump processes	15
4	<u>Takahiro Hasebe</u> (Hokkaido Univ.) <u>Noriyoshi Sakuma</u> (Aichi Univ. of Edu.) <u>Steen Thorbjørnsen</u> (Aarhus Univ.)	Freely selfdecomposability of the normal distributions	10
5	<u>Toshio Nakata</u> (Fukuoka Univ. of Edu.)	The maxima for the generalized St. Petersburg game	10
6	<u>Yong Moo Chung</u> (Hiroshima Univ.) <u>Hiroki Takahasi</u> (Keio Univ.)	Large deviation principle for unimodal maps with flat critical point	15
7	<u>Jin Hatamoto</u> (Tokyo Nat. Coll. of Tech.)	Relation between mixing properties and chaos in the sense of Devaney	10
8	<u>Hisatoshi Yuasa</u> (Osaka Kyoiku Univ.)*	A relative, strictly ergodic model theorem for infinite measure-preserving systems	15
9	<u>Haruyoshi Tanaka</u> (Wakayama Med. Univ.)	On convergence of the Gibbs measures of perturbed graph iterated function systems with degeneration	15
10	<u>Masatake Hirao</u> (Aichi Pref. Univ.)	On p -frame potential of random point configurations on the sphere . . .	15
14:15–15:00			
11	<u>Nariyuki Minami</u> (Keio Univ.)	One-dimensional Schrödinger operator with decaying white noise potential	15
12	<u>Yuki Suzuki</u> (Keio Univ.)	Diffusion processes with random potentials consisting of specially contracted self-similar processes	15
13	<u>Kiyoi Hoshino</u> (Osaka Pref. Univ.)	On the reconstruction formulas in the wide sense of Wiener functionals from the SFCs	10
15:15–16:15 Award Lecture for the 2017 MSJ Analysis Prize			
	<u>Masayoshi Takeda</u> (Tohoku Univ.)	Properties of symmetric Markov processes with tightness property	
16:30–17:30 Talk Invited by Statistics and Probability Section			
	<u>Koichiro Takaoka</u> (Hitotsubashi Univ.)	The first fundamental theorem of asset pricing: stochastic integrals and martingale measures	

March 19th (Mon) Conference Room V

9:30–11:30

14	<u>Satoshi Suzuki</u> (Shimane Univ.)	Quasiconvex programming with a reverse quasiconvex constraint	15
15	<u>Masayuki Horiguchi</u> (Kanagawa Univ.)	Adaptive approach in a multivariate Bayesian control chart	15
16	<u>Toshiharu Fujita</u> (Kyushu Inst. of Tech.)	Decision process with converging branch system —Three types of recursive equations—	15
17	<u>Shuhei Mano</u> (Inst. of Stat. Math.)	A direct sampler for A-hypergeometric distributions and its application to random Young tableaux	15
18	<u>Hideyasu Yamashita</u> (Aichi Gakuin Univ.)	Probabilistic loop path integral for spins	15

- 19 Shigeyoshi Ogawa (Ritsumeikan Univ.) On the regularity of Gaussian processes indexed by Dirichlet spaces
Gerard Kerkycharian (LPMA, Univ. Paris-Diderot) 10
Pencho Petrushev (Univ. South Carolina)
Dominique Picard (Univ. Paris-Diderot)
- 20 Tomoko Takemura Convergence of diffusion processes in a tube 15
(Nara Women's Univ.)

11:30–12:00 Research Section Assembly

March 20th (Tue) Conference Room V

10:00–11:40

- 21 Hiromu Yumiba (Int. Inst. for Nat. Sci.) GA*-optimal balanced third-order designs of resolution $R^*({10,01})$
Yoshifumi Hyodo (Okayama Univ. of Sci./Int. Inst. for Nat. Sci.) with $N < \nu(m)$ for 3^m factorials 15
Masahide Kuwada (Int. Inst. for Nat. Sci.)
- 22 Mitsuhiro Takami (Tokyo Univ. of Sci.) Measure of departure from local symmetry for square contingency tables
Yusuke Saigusa (Yokohama City Univ.) 10
Aki Ishii (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
- 23 Nobuhiro Taneichi Improvement of test of complete independence in multi-dimensional
(Hokkaido Univ. of Edu.) contingency tables. 15
Yuri Sekiya (Hokkaido Univ. of Edu.)
Jun Toyama (Inst. for the Practical Application of Math.)
- 24 Tomoya Ikezawa (Tokyo Univ. of Sci.) Measure of departure from point-symmetry for the collapsed square
Kiyotaka Iki (Tokyo Univ. of Sci.) contingency tables 10
Kouji Yamamoto (Osaka City Univ.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
- 25 Takuya Yoshimoto Covariance symmetry model and decomposition of symmetry model for
(Tokyo Univ. of Sci./Chugai Pharmaceutical Co., Ltd.) square contingency table 15
Kouji Tahata (Tokyo Univ. of Sci.)
Kiyotaka Iki (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
- 26 Jo Suzuki (Osaka Univ.) Estimation of conditional mutual information for discrete and continu-
ous variables 15

14:15–15:05

- 27 Kazuyoshi Yata (Univ. of Tsukuba) Bias-corrected estimation of eigenvalues in high-dimensional settings
Makoto Aoshima (Univ. of Tsukuba) 15
- 28 Aki Ishii (Tokyo Univ. of Sci.) Equality tests of high-dimensional covariance matrices by using the
Kazuyoshi Yata (Univ. of Tsukuba) noise-reduction methodology 15
Makoto Aoshima (Univ. of Tsukuba)
- 29 Yoshihiko Maesono (Kyushu Univ.) Smoothed two-sample nonparametric tests and their asymptotic prop-
Taku Moriyama (Kyushu Univ.) erties 10

15:20–16:20 Talk Invited by Statistics and Probability Section

Kazuki Matsubara (ChuoGakuin Univ.) Pairwise additivity of BIB designs and related combinatorial structures

16:40–17:40 Talk Invited by Statistics and Probability Section

Koji Tsukuda (Univ. of Tokyo) Studies on the theory of weak convergences in Hilbert spaces and its applications

March 21st (Wed) Conference Room V

10:00–12:00

- 30 Nakahiro Yoshida (Univ. of Tokyo) Martingale expansion and power variation 15
- 31 Nakahiro Yoshida (Univ. of Tokyo) Asymptotic expansion of Skorohod integrals 15
- 32 Yoshiyuki Tanida (Waseda Univ.) Asymptotic theory and numerical studies of Whittle estimation for
Fumiya Akashi (Waseda Univ.) high-dimensional time series 10
Masanobu Taniguchi (Waseda Univ.)
- 33 Yujie Xue (Waseda Univ.) LASSO estimators for high-dimensional time series with long-memory
Masanobu Taniguchi (Waseda Univ.) disturbances 10
- 34 Kou Fujimori (Waseda Univ.) Cox's proportional hazards model with a high-dimensional and sparse
regression parameter 15
- 35 Fumiya Akashi (Waseda Univ.) Local asymptotic power of self-weighted GEL method and choice of
weighting function 15
- 36 Hikaru Fukuda (Osaka Univ.) Local asymptotic normality property for stable processes under high-
Masaaki Fukasawa (Osaka Univ.) frequency observations 15

Applied Mathematics

March 18th (Sun) Conference Room VII

9:30–11:45

- 1 Tomoko Adachi (Toho Univ.) A labeling of a cyclic bipartite graph and its application to RAID 10
- 2 Mickaël Buchet (Tohoku Univ./TU Graz) Vietoris–Rips realization of indecomposable persistence modules of ar-
bitrarily large dimension 15
Emerson Gaw Escobar (Tohoku Univ.)
- 3 Michio Seto (Nat. Defense Acad. of Japan) Application of the theory of quasi-orthogonal integrals to graph theory
Sho Suda (Aichi Univ. of Edu.) 10
- 4 Shohei Satake (Kobe Univ.) Remark on two typical properties of random graphs 15
- 5 Shu Kanazawa (Tohoku Univ.) Asymptotic behavior of lifetime sums for random simplicial complex
Masanori Hino (Kyoto Univ.) processes 15

- 6 Kosuke Suzuki (Hiroshima Univ.) Enumeration of the Chebyshev–Frolov lattice points in axis-parallel
Takehito Yoshiki (Kyoto Univ.) boxes 15
- 7 Naoto Agawa (Kyushu Univ.) A relational T-algebra isomorphic to the category of the topological
Yoshihiro Mizoguchi (Kyushu Univ.) spaces 15
- 8 Sho Suda (Aichi Univ. of Edu.) The Smith normal form of skew-symmetric D-optimal designs of order
Gary Greaves (Nanyang Tech. Univ.) $n \equiv 2 \pmod{4}$ 10
- 9 Hiroshi Nozaki (Aichi Univ. of Edu.) Maximizing the order of a bipartite regular graph for given valency and
second eigenvalue 15
- 14:20–16:30**
- 10 Yandong Bai Kernels by properly colored paths in arc-colored digraphs 10
(Northwestern Polytechnical Univ.)
Shinya Fujita (Yokohama City Univ.)
Shenggui Zhang
(Northwestern Polytechnical Univ.)
- 11 Jun Fujisawa (Keio Univ.) Distance matching extension in cubic bipartite graphs 15
R. E. L. Aldred (Univ. of Otago)
Akira Saito (Nihon Univ.)
- 12 Yumiko Ohno (Yokohama Nat. Univ.) n -Triad colorings of triangulations on the torus 15
- 13 Yoshihiro Asayama 3-dynamic coloring for triangulations on surfaces 15
(Yokohama Nat. Univ.)
Yuki Kawasaki (Yokohama Nat. Univ.)
Seog-Jin Kim (Konkuk Univ.)
Atsuhiko Nakamoto
(Yokohama Nat. Univ.)
Kenta Ozeki (Yokohama Nat. Univ.)
- 14 Kengo Enami (Yokohama Nat. Univ.) 3-connected 3-regular planar graphs embedded on non-spherical surfaces
..... 15
- 15 Kenta Ozeki (Yokohama Nat. Univ.) The signature of edge colorings on the projective plane 15
Toshiki Abe (Yokohama Nat. Univ.)
- 16 Kenta Noguchi (Tokyo Denki Univ.) Spanning bipartite subgraphs having large size of even triangulations
..... 15
- 17 Yusuke Suzuki (Niigata Univ.) Exceptional balanced triangulations on closed surfaces 15
Satoshi Murai (Osaka Univ.)

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

- Masashi Shinohara (Shiga Univ.) Classification problems and extremal problems on distance sets

March 19th (Mon) Conference Room VII

9:30–11:45

- 18 Iwao Sato (Oyama Nat. Coll. of Tech.) A weighted generalized Bartholdi zeta function of a digraph 15
Hideo Mitsunashi (Hosei Univ.)
Hideaki Morita (Muroan Inst. of Tech.)

- 19 Yusuke Ide (Kanagawa Univ.) Two-state space-inhomogeneous coined quantum walk 10
Norio Konno (Yokohama Nat. Univ.)
Daichi Nakayama
(Yokohama Nat. Univ.)
- 20 Takashi Komatsu The Quantum walk on the 2-dimensional torus 10
(Yokohama Nat. Univ.)
Norio Konno (Yokohama Nat. Univ.)
Akihiro Narimatsu
(Yokohama Nat. Univ.)
- 21 Daiju Funakawa (Hokkaido Univ.) Eigenvalue analysis of a 2-dimensional quantum walk 15
Toru Fuda (Hokkaido Univ.)
Satoshi Sasayama (Hokkaido Univ.)
Akito Suzuki (Shinshu Univ.)
- 22 Tomoyuki Terada Study on the one-dimensional lazy Fourier walk 10
(Kanazawa Inst. of Tech.)
Takashi Komatsu
(Yokohama Nat. Univ.)
Norio Konno (Yokohama Nat. Univ.)
Kei Saito (Yokohama Nat. Univ.)
- 23 Hironichi Ohno (Shinshu Univ.) Unitary equivalence classes of one-dimensional quantum walks 15
- 24 Takashi Komatsu Stationary measures of quantum walks on the higher-dimensional integer lattice 15
(Yokohama Nat. Univ.)
Norio Konno (Yokohama Nat. Univ.)
- 25 Takashi Komatsu Stationary measures of space-inhomogeneous quantum walks 10
(Yokohama Nat. Univ.)
Hikari Kawai (Yokohama Nat. Univ.)
Norio Konno (Yokohama Nat. Univ.)

- 26 Yusuke Yoshie (Tohoku Univ.) Periodicity of the Grover walk on joint of graphs 15

14:00–14:20 Presentation Ceremony for the 2017 MSJ Prize for Excellent Young Applied Mathematicians

March 20th (Tue) Conference Room VII

9:15–11:50

- 27 Genki Kusano (Tohoku Univ.) The bootstrap method by the Persistence weighted Gaussian kernel 15
- 28 Hiroshi Takeuchi (Tohoku Univ.) The persistent homology of a correspondence: A viewpoint from quiver representations 15
Yasuaki Hiraoka (Tohoku Univ.)
- 29 Ippei Obayashi (Tohoku Univ.) Volume optimal cycles for persistent homology 15
- 30 Takashi Teramoto The case studies of using computational homology in medical science 10
(Asahikawa Medical Univ.)
Akihiro Takiyama
(Hokkaido Bunkyo Univ.)
- 31 Hiroe Oka (Ryukoku Univ.) The Conley index over base 15
Sota Koyama (Ryukoku Univ.)

- 32 Shunji Horiguchi On convergences and distributions of roots of extended complex Newton's method 15
- 33 Fuminori Sakaguchi (Univ. of Fukui) 'Decipherment' of integer sequences corresponding to extra solutions in an integer-type algorithm for ODEs 15
- 34 Tomooki Yuasa (Ritsumeikan Univ.)
Tatsuki Akiyama (Ritsumeikan Univ.)
Arturo Kohatsu-Higa
(Ritsumeikan Univ.) Second order unbiased simulation method for reflected stochastic differential equations 15
- 35 Takehiko Kinoshita
Yoshitaka Watanabe (Kyushu Univ.)
Mitsuhiro T. Nakao (Waseda Univ.) An invertibility verifications for linear elliptic operators mapping to dual space 15
- 36 Tomoyuki Miyaji (Meiji Univ.)
Hisahi Okamoto (Gakushuin Univ.) Computer-assisted proof of the existence of a unimodal solution to the Proudman–Johnson equation 15
- 14:15–16:40**
- 37 Yuuki Ueda (Univ. of Tokyo)
Norikazu Saito (Univ. of Tokyo) The inf-sup condition and error estimate of the Nitsche's method for the parabolic problems 15
- 38 Daisuke Koyama ^b
(Univ. of Electro-Comm.) An application of the interior penalty method to a mixed nonconforming finite element method for biharmonic problems 15
- 39 Xuefeng Liu (Niigata Univ.)
Mitsuhiro Nakao
(Waseda Univ./Kyushu Univ.*)
Chun'guang You
(China Acad. of Eng. Phys.)
Shin'ichi Oishi (Waseda Univ.) A priori error estimation for the finite element solution to Stokes equation in 3D domain 15
- 40 Norikazu Saito (Univ. of Tokyo) Variational analysis of the discontinuous Galerkin time-stepping method 15
- 41 Tomoya Kemmochi (Univ. of Tokyo) An analytic semigroup approach for the DG time-stepping method ... 15
- 42 Nobuyuki Higashimori (Kyoto Univ.) Numerical examples of unstable finite difference schemes for the initial value problem of the heat equation including sideways case 15
- 43 Takuya Tsuchiya (Waseda Univ.)
Makoto Nakamura (Yamagata Univ.) On the numerical stability of semi-linear Klein–Gordon equations in de Sitter spacetime 15
- 44 Ai Ishikawa (Kobe Univ.)
Takaharu Yaguchi (Kobe Univ.) The extension of the energy-preserving method based on the variational principle to the Lie group 15
- 45 Makoto Okumura (Osaka Univ.) Nonlinear and linear DVDM scheme for the conservative non-local Allen–Cahn equation 15

16:50–17:50 Talk Invited by Applied Mathematics Section

- Shuji Yoshikawa (Oita Univ.) Energy method for structure-preserving finite difference schemes

March 21st (Wed) Conference Room VII

9:15–11:55

- 46 Masaji Watanabe (Okayama Univ.)
Fusako Kawai (Kyoto Inst. Tech.) Inverse analysis for microbial population in biodegradation process of xenobiotic polymer 15

- 47 Yoichi Enatsu (Tokyo Univ. of Sci.) On an SIR model with free boundary 15
 Emiko Ishiwata (Tokyo Univ. of Sci.)
 Takeo Ushijima (Tokyo Univ. of Sci.)
- 48 Mamoru Okamoto (Hokkaido Univ.) Mathematical model including fluid's effect of camphor disk's self-
 Masaharu Nagayama (Hokkaido Univ.) motion 15
- 49 Takeshi Gotoda (Hokkaido Univ.) Mathematical modeling for stable formation of the granular layer and
 Masaaki Uesaka (Hokkaido Univ.) tight junctions in the epidermis 15
 Yusuke Yasugahira (Hokkaido Univ.)
 Yasuaki Kobayashi (Ochanomizu Univ.)
 Hiroyuki Kitahata (Chiba Univ.)
 Mitsuhiro Denda
 (Shiseido Company, Ltd.)
 Masaharu Nagayama (Hokkaido Univ.)
- 50 Takamichi Sushida (Hokkaido Univ.) A mathematical model for representing collective rotational migrations
 Hitomi Mori (Hokkaido Univ.) of cell groups covered by basement membrane 15
 Sumire Ishida (Hokkaido Univ.)
 Kazuya Furusawa (Hokkaido Univ.)
 Hisashi Haga (Hokkaido Univ.)
 Masakazu Akiyama (Hokkaido Univ.)
- 51 Shun Sato (Univ. of Tokyo) Reformulation of evolutionary differential equations with a mixed deriva-
 tive 15
- 52 Yuuki Shimizu (Kyoto Univ.) Green's function on surfaces with symmetry 15
- 53 Takashi Sakajo (Kyoto Univ.) One dimensional hydrodynamic PDE generating turbulent cascade of
 Takeshi Matsumoto (Kyoto Univ.) inviscid invariant 15
- 54 Takashi Sakajo (Kyoto Univ.) Linear feedback control stabilizing point vortex equilibria near a Kasper
 Rhodri Nelson (Imperial Coll. London) Wing 15
 Bartosz Protas (McMaster Univ.)
- 55 Kohji Ohtsuka Shape sensitivity analysis of eigenvalue by generalized J-integral in
 (Hiroshima Kokusai Gakuin Univ.) boundary value problems 15
- 14:15–16:40**
- 56 Keiichi Ueda (Univ. of Toyama) Synchronization of two interacting populations of oscillators by au-
 tonomous parameter control 15
- 57 Takeshi Watanabe (Univ. of Tokyo) Global bifurcation structure governing interaction between bump het-
 Zhijun Gao (Tohoku Univ.) erogeneity and pulse with oscillatory tail 15
 Yasumasa Nishiura (Tohoku Univ.)
- 58 Kei Nishi (Kyoto Sangyo Univ.) Bifurcation analysis of the motion of two self-propelled camphor disks
 Masaharu Nagayama (Hokkaido Univ.) on an annular field 15
 Satoshi Nakata (Hiroshima Univ.)
- 59 Shogo Yamanaka (Kyoto Univ.) Existence of transverse heteroclinic orbits and nonintegrability in two-
 Kazuyuki Yagasaki (Kyoto Univ.) degree-of-freedom Hamiltonian systems with saddle-centers 15
- 60 Naoto Nakano Characteristics of derivative embedded surfaces and predictability of
 (Kyoto Univ./JST PRESTO) timeseries 15

61	<u>Takiko Sasaki</u> (Meiji Univ.) Tetsuya Ishiwata (Shibaura Inst. of Tech.)	Numerical and mathematical analysis for the blow-up curve of solutions to 1-dimensional nonlinear wave equations	15
62	<u>Koichi Anada</u> (Waseda Univ. Senior High School) Tetsuya Ishiwata (Shibaura Inst. of Tech.) Takeo Ushijima (Tokyo Univ. of Sci.)	A study for backward self similar solutions of a quasi-linear parabolic equation	15
63	Kaname Matsue (Kyushu Univ./Kyushu Univ.)	Blow-up rates of blow-up solutions determined by dynamics at infinity	15
64	Kaname Matsue (Kyushu Univ./Kyushu Univ.)	Oscillatory blow-up solutions with fast blow-up rates and oscillatory grow-up solutions	15
16:50–17:50 Talk Invited by Applied Mathematics Section			
	Akitoshi Takayasu (Univ. of Tsukuba)	Verified computations for solutions of evolution equations with semi-group theory	

Topology

March 18th (Sun) Conference Room II

9:40–12:00

1	Eiko Iwayama	The simplex of n -dim. and New Euler–Poincaré Expanded characteristic and the relation of combination numbers	5
2	Eiko Iwayama	The triangle of the cuboids of n -dimension and New Euler–Poincaré Expanded characteristic	5
3	Yoshihito Ogasawara (Waseda Univ.)	On an applicability of topology	10
4	Hironobu Naoe (Tohoku Univ.)	Infinitely many corks having large shadow-complexities	15
5	Akira Miyamura (Tokyo Tech)	A note on signature of Lefschetz fibrations with planar fiber	10
6	Yusuke Inagaki (Osaka Univ.)	On Fuchsian loci of Hitchin components of a pair of pants	15
7	Yuuki Tadokoro (Nat. Inst. of Tech., Kisarazu Coll.)	Pointed harmonic volume and its relation to extended Johnson homomorphism	15
8	Takahiro Yamamoto (Tokyo Gakugei Univ.)	Cobordism groups of Morse functions on manifolds with boundary . . .	15
9	<u>Asahi Tsuchida</u> (Hokkaido Univ.) Kentarō Saji (Kobe Univ.)	Singularities of bundle homomorphism between a distribution and a vector bundle	15
10	Kentarō Saji (Kobe Univ.)	$SO(3)$ -normal form of swallowtail and geometric patterns	10

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

Daisuke Kishimoto (Kyoto Univ.) Homotopy theory of polyhedral products

15:30–18:00

- 11 Masayuki Yamasaki (Okayama Univ. of Sci.) On rotation numbers of regular closed curves on aspherical surfaces 15
- 12 Katsuhiko Kuribayashi (Shinshu Univ.) On the category of stratifolds and the Serre–Swan theorem 15
Toshiki Aoki
- 13 Takuo Matsuoka Higher theories of algebraic structures 15
- 14 Shin Hayashi (MathAM-OIL) Bulk-edge correspondence and the cobordism invariance of the index 15
- 15 Shin Hayashi (MathAM-OIL) Bulk-edge and corner correspondence 15
- 16 Syunji Moriya (Osaka Pref. Univ.) The space of knots in a manifold and the right operadic module of configuration spaces 15
- 17 Syunji Moriya (Osaka Pref. Univ.) Non-formality of the odd dimensional framed little disks operads 15
- 18 Hideya Kuwata (Kindai Univ. Tech. Coll.) Classification of toric manifolds over an n -cube with one vertex cut 15
Sho Hasui (Osaka Pref. Univ.)
Mikiya Masuda (Osaka City Univ.)
Seonjeong Park (Osaka City Univ.)
- 19 Hiraku Abe (Osaka City Univ.) On the cohomology rings of regular semisimple Hessenberg varieties 10
Tatsuya Horiguchi (Osaka Univ./Osaka City Univ.)
Mikiya Masuda (Osaka City Univ.)

March 19th (Mon) Conference Room II

9:30–10:30

- 20 Atsuhide Mori (Osaka Dental Univ.) Symplectic/contact geometry of t -distributions 15
- 21 Takuya Katayama (Hiroshima Univ.) Embeddability of the right-angled Artin groups on the complement graphs of linear forests 15
- 22 Motoko Kato (Univ. of Tokyo) On the isomorphism problem of signed Thompson groups 10
- 23 Narutaka Ozawa (Kyoto Univ.) Kazhdan’s property (T) and semidefinite programming 15

10:45–11:45 Talk Invited by Topology Section

- Masayuki Asaoka (Kyoto Univ.) Growth rate of the number of periodic points for smooth dynamical systems

13:00–14:20

- 24 Noriaki Kawaguchi (Univ. of Tokyo)^b On the shadowing and limit shadowing properties 15
- 25 Shinobu Hashimoto Moduli of two-dimensional diffeomorphisms with cubic tangencies 15
(Tokyo Metro. Univ.)
- 26 Koichi Hiraide (Ehime Univ.)^b Relationship between topological entropy and Lyapunov exponents ... 15
Chihiro Matsuoka (Osaka City Univ.)
- 27 Kaori Yamazaki Questions on monotone operators for vector-valued maps 15
(Takasaki City Univ. of Econ.)
- 28 Yukinobu Yajima (Kanagawa Univ.) Three embeddings and their implications in products of generalized metric spaces 15
Yasushi Hirata (Kanagawa Univ.)

March 20th (Tue) Conference Room II

9:20–12:00

- 29 In Dae Jong (Kindai Univ.) Achiral 1-cusped hyperbolic 3-manifolds not coming from amphicheiral
Kazuhiro Ichihara (Nihon Univ.) null-homologous knot complements 15
Kouki Taniyama (Waseda Univ.)
- 30 Kazuhiro Ichihara (Nihon Univ.) Chirally cosmetic surgeries and Casson invariants 15
Tetsuya Itoh (Osaka Univ.)
Toshio Saito (Joetsu Univ. of Edu.)
- 31 Naoki Sakata (Hiroshima Univ.) Veering structures of the canonical decompositions of hyperbolic fibered
two-bridge link complements 10
- 32 Ken'ichi Yoshida (Kyoto Univ.) Hyperbolicity on tangle gluings 15
- 33 Ryan Blair (California State Univ.) Height, trunk and representativity of knots 15
Makoto Ozawa (Komazawa Univ.)
- 34 Ryan Blair (California State Univ.) The incompatibility of crossing number and bridge number for knot
Alexandra A. Kjachukova diagrams 15
(Univ. of Pennsylvania)
Makoto Ozawa (Komazawa Univ.)
- 35 Jie Chen (Tohoku Univ.) A pair of Seifert matrices that cannot have algebraic Gordian distance
one 15
- 36 Teruaki Kitano (Soka Univ.) Reidemeister torsion of a Brieskorn homology 3-sphere for $SL(2; \mathbb{C})$ -
irreducible representations 10
- 37 Shunsuke Sakai (Hiroshima Univ.) A characterization of alternating link exteriors in terms of cubed com-
plexes 15
- 38 Yoshifumi Matsuda On the sepaktakraw link 15
(Aoyama Gakuin Univ.)

14:20–15:20 Talk Invited by Topology Section

- Takefumi Nosaka (Tokyo Tech) Nilpotent studies in 3-dimensional topology

15:35–17:45

- 39 Noboru Ito (Univ. of Tokyo) On equivalence classes of spherical curves by deformations of types RI
Megumi Hashizume (Meiji Univ.) and RIII 15
- 40 Noboru Ito (Univ. of Tokyo) Finite type invariants and n-similarity of virtual knots by forbidden
Migiwa Sakurai moves 10
(Ibaraki Nat. Coll. of Tech.)
- 41 Yuka Kotorii (RIKEN) C_n -move on long virtual knot and Goussarov–Polyak–Viro's finite type
invariant 10
- 42 Atsuhiko Mizusawa On HL-homotopy classes for 3-component handlebody-links 15
- 43 Naoki Kimura (Waseda Univ.) Dijkgraaf–Witten invariants of cusped hyperbolic 3-manifolds 10
- 44 Wataru Yuasa (Tokyo Tech) A q -series identity via the \mathfrak{sl}_3 colored Jones polynomials for the $(2, 2m)$ -
torus link 10
- 45 Wataru Yuasa (Tokyo Tech) The \mathfrak{sl}_3 colored Jones polynomials for 2-bridge links 10

46	Tomo Murao (Univ. of Tsukuba)	A relationship between MCQ coloring numbers and MCB coloring numbers	10
47	Eri Matsudo (Nihon Univ.)	Minimal coloring number of \mathbb{Z} -colorable links	10
48	Airi Aso (Tokyo Metro. Univ.)	Twisted Alexander polynomials of $(-2, 3, 2n + 1)$ -pretzel knots	15

Infinite Analysis

March 20th (Tue) Conference Room VI

10:00–11:30

1	Kentaro Kojima (Chuo Univ.) Tsukasa Sato (Chuo Univ.) Kouichi Takemura (Chuo Univ.)	Polynomial solutions of q -Heun equation	15
2	Zhijie Chen (Yau Math. Sci. Center) Ting-Jung Kuo (Nat. Taiwan Normal Univ.) Chang-Shou Lin (Nat. Taiwan Univ.) Kouichi Takemura (Chuo Univ.)	Real-root property of the spectral polynomial of the Treibich–Verdier potential and related problems	15
3	Ayumu Hoshino (Hiroshima Inst. of Tech.) Jun'ichi Shiraishi (Univ. of Tokyo)	Explicit formulas for one-column Macdonald polynomials of types C_n and D_n	15
4	Masahiko Ito (Univ. of Ryukyus) Aiko Miyanaga (Kobe Univ.) Masatoshi Noumi (Kobe Univ.)	Determinant formulas for the q -hypergeometric integrals associated with the root system of type G_2	15
5	Kôki Itô (Toyohashi Univ. of Tech.)	Homology of q -cycles	15
6	Kanam Park (Kobe Univ.)	An extension of q -hypergeometric series and a monodromy preserving deformation	15

14:00–15:30

7	Yousuke Ohyama (Tokushima Univ.)	A connection problem for basic hypergeometric series ${}_r\phi_{r-1}(\mathbf{0}; \mathbf{b}; q, x)$	15
8	Yousuke Ohyama (Tokushima Univ.)	q -Stokes coefficients of a difference equation satisfied by basic Hypergeometric Series ${}_3\phi_2(a_1, a_2, a_3; b_1, 0; q, x)$	15
9	Hokuto Kanbara Yuto Takeda Kimio Ueno (Waseda Univ.)	Expansion of solutions for KZ-theoretical monodromy preserving deformation in terms of multiple polylogarithms	15
10	Kimio Ueno (Waseda Univ.)	KZ-theoretical approach to monodromy preserving deformation and its relation to Schlesinger equations	10
11	Masato Okado (Osaka City Univ.) Anne Schilling (UC Davis) Travis Scrimshaw (Univ. of Queensland)	Bijection between paths and rigged configurations of nonexceptional affine types	15
12	Kanehisa Takasaki (Kindai Univ.)	Topological vertex and integrable hierarchies of Volterra type	15

15:45–16:45 Talk Invited by Infinite Analysis Special Session

Taro Kimura (Keio Univ.) Quiver gauge theory and quiver W-algebra

March 21st (Wed) Conference Room VI

9:30–10:30

- 13 Kohei Motegi ^b Elliptic Felderhof model and elliptic Schur functions 15
(Tokyo Univ. of Marine Sci. and Tech.)
- 14 Hiroyuki Yamane (Univ. of Toyama) Bruhat order of Weyl groupoids 15
Iván Angiono (Nat. Univ. of Córdoba)
- 15 Yoshitake Hashimoto Screening operators and \mathfrak{sl}_2 action on the lattice vertex operator algebras of type A_1 15
(Tokyo City Univ.)
Takuya Matsumoto (Nagoya Univ.)
Akihiro Tsuchiya (Kavli IPMU)
- 16 Ryo Sato (Univ. of Tokyo) Modular transformation properties and the Verlinde formula 15

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

Hiroshi Naruse (Univ. of Yamanashi) Generalization of Hall–Littlewood function from the view point of Schubert calculus, generating function and application