Final version: 2017/02/20

2017 The Mathematical Society of Japan

ANNUAL MEETING

Dates: March 24th (Fri)–27th (Mon), 2017

Venue: Tokyo Metropolitan University
1-1 Minami-Osawa, Hachioji-shi, Tokyo 192-0397

Contact to: Tokyo Metropolitan University
Department of Mathematics and Information Sciences
E-mail tmu17mar@mathsoc.jp
During session: Phone +81 (0) 90 1791 3483
The Mathematical Society of Japan
Phone +81 (0) 3 3835 3483

	I Small Hall Auditorium	II Bldg. 11 Rm. 204	III Bldg. 11 Rm. 110	IV Bldg. 12 Rm. 101	V Bldg. 12 Rm. 102	VI Bldg. 12 Rm. 103	VII Bldg. 12 Rm. 104	VIII Bldg. 12 Rm. 201	IX Bldg. 12 Rm. 202
24th (Fri)	Functional Equations 9:30–12:00 14:15–16:15	Algebra 9:30–11:45 14:25–17:00	Found. of Math. and History of Math. 9:00–11:30 14:15–16:40	Topology 10:00–12:00 15:30–17:00	Applied Mathematics 10:30–11:45 14:15–15:30	Statistics and Probability 9:45–12:00	Complex Analysis 9:30–11:50 14:15–16:05	Geometry 9:45–11:45 14:15–16:10	Functional Analysis 14:15–16:00
	Featured Invited Talks 13:00–14:00								
	Invited Talk 16:30–17:30			Invited Talk 14:15–15:15	Invited Talk 15:50–16:50	Invited Talks 14:15–15:15 15:30–16:30	Invited Talk 16:20–17:20	Invited Talk 16:20–17:20	Invited Talk 16:15–17:15
25th (Sat)	Functional Equations 9:30–12:00	Algebra 9:00–12:00	Found. of Math. and History of Math. 9:15–11:30	Topology 10:00–11:50 13:15–14:45	Applied Mathematics 10:00–11:45	Statistics and Probability 9:50–11:30 13:30–14:30	Complex Analysis 9:40–11:50	Geometry 9:20–11:30	Functional Analysis 9:00–12:00
	Invited Talk 13:30–14:30	Invited Talk 13:30–14:30	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 (Large Hall, Auditorium) ····· (15:00–15:20) Plenary Talks (Large Hall, Auditorium) MSJ Spring Prize Winner ····· (15:30–16:30) Toshiaki Shoji (Tongji Univ.) ····· (16:40–17:40) Official Party (Lever son Verre "Minami-Osawa") ····· (18:00–20:00)								
26th (Sun)	Functional Equations 9:30–12:00 14:15–16:15	Algebra 9:15–12:00	Infinite Analysis 10:30–11:30	Topology 10:00–12:00 14:15–15:45	Applied Mathematics 14:15–16:30 Special Session 9:30–12:00	Statistics and Probability 9:50–12:00	Real Analysis 9:00–11:55 14:15–16:50	Geometry 9:50–11:40 14:15–15:35	Functional Analysis 9:30–12:00 14:15–16:15
	Featured Invited Talks 13:00–14:00								
	Invited Talk 16:30–17:30	Invited Talks 14:30–15:30 15:40–16:40 16:50–17:50	Invited Talks 14:15–15:15 15:30–16:30	Invited Talk 16:00–17:00	Invited Talk 16:50–17:50	Invited Talks 14:15–15:15 15:30–16:30	Invited Talk 17:00–18:00	Invited Talk 15:50–16:50	Invited Talk 16:30–17:30
27th (Mon)	Functional Equations 9:15–12:00 14:15–16:15	Algebra 9:15–12:00 14:15–16:00	Infinite Analysis 10:15–12:00		Applied Mathematics 9:30–11:30 14:15–16:20	Statistics and Probability 9:50–12:00	Real Analysis 9:00–11:40 14:15–16:25		
	Featured Invited Talks 13:00–14:00								
	Invited Talk 16:30–17:30				Invited Talk 16:40–17:40		Invited Talk 16:40–17:40		

Plenary Talks

March 25th (Sat) Large Hall, Auditorium

2017 Spring Prize Winner ····· (15:30–16:30)

Toshiaki Shoji (Tongji Univ.) Kostka functions associated to complex reflection groups ·· (16:40–17:40)

Featured Invited Talks

March 24th (Fri)

Conference Room II

Takeshi Tsuji (Univ. of Tokyo) The p-adic Simpson correspondence ····· (13:00–14:00)

Conference Room III

Toshimichi Usuba (Waseda Univ.) Universe of set theory —the Universe and Multiverse— ··· (13:00–14:00)

March 26th (Sun)

Conference Room V

Guest Talk from the Japan Society for Industrial and Applied Mathematics

Hideyuki Azegami (Nagoya Univ.) Regularized solutions to shape optimization problems and their applications ····· (13:00–14:00)

Conference Room VII

Yoshihiro Mizuta (Hiroshima Univ.*) Function spaces with variable exponents ····· (13:00–14:00)

Conference Room VIII

Mikio Furuta (Univ. of Tokyo) An introduction to mathematical aspect of topological phase and bulk-edge correspondence ····· (13:00–14:00)

March 27th (Mon)

Conference Room III

Atsuo Kuniba (Univ. of Tokyo) Matrix products in integrable probability ····· (13:00–14:00)

Conference Room V

Hiroshi Suito (Okayama Univ.) Mathematical sciences for understanding the mechanisms of cardiovascular diseases ····· (13:00–14:00)

Talks Invited by Research Sections and Special Session

March 24th (Fri)

Geometry (Conference Room VIII)

Atsufumi Honda (Miyakonojo Nat. Coll. of Tech.) — Geometry of positive semi-definite metrics and isometric realization problem ····· (16:20–17:20)

Complex Analysis (Conference Room VII)

Katsuhiko Matsuzaki (Waseda Univ.) — Teichmüller spaces of circle diffeomorphisms ····· (16:20–17:20)

Functional Equations (Conference Room I)

Kazuki Hiroe (Josai Univ.) — Around accessory parameters of linear ordinary differential equations ····· (16:30–17:30)

Functional Analysis (Conference Room IX)

Koichi Kaizuka (Gakushuin Univ.) — Stationary scattering theory for invariant differential operators on symmetric spaces of noncompact type ····· (16:15–17:15)

Statistics and Probability (Conference Room VI)

Tomoyuki Ichiba (Univ. of California, Santa Barbara) — Stochastic analysis for collision of Brownian particles ····· (14:15–15:15)

Award Lecture for the 2016 MSJ Analysis Prize

Tomohiro Sasamoto (Tokyo Tech) — The KPZ equation and integrable stochastic interacting systems ····· (15:30–16:30)

Applied Mathematics (Conference Room V)

Ying Miao (Univ. of Tsukuba)$^{\flat}$ — Combinatorics of Digital Fingerprinting ····· (15:50–16:50)

Topology (Conference Room IV)

Mitsunobu Tsutaya (Kyushu Univ.) — Applications of Stasheff's A_∞-theory to Lie groups ····· (14:15–15:15)

March 25th (Sat)

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

Akitoshi Kawamura (Univ. of Tokyo) — Computational complexity in analysis ····· (13:15–14:15)

Algebra (Conference Room II)

Scott Carnahan (Univ. of Tsukuba) — Recent advances in Moonshine ····· (13:30–14:30)

Geometry (Conference Room VIII)

Yu Kitabeppu (Kumamoto Univ.)$^{\flat}$ — On regular sets in metric measure spaces ····· (13:15–14:15)

Complex Analysis (Conference Room VII)

Masanori Adachi (Tokyo Univ. of Sci.) — Function theory on Levi-flats: case study on flat circle bundles ····· (13:15–14:15)

Functional Equations (Conference Room I)

Award Lecture for the 2016 MSJ Analysis Prize

Shigeaki Koike (Tohoku Univ.) ABP maximum principle for L^p-viscosity solutions of fully nonlinear equations and its applications · · · · · · · · · · · · · · · · · (13:30–14:30)

Functional Analysis (Conference Room IX)

Kazuhiro Kawamura (Univ. of Tsukuba) Some Banach–Stone type theorems · (13:15–14:15)

March 26th (Sun)

Algebra (Conference Room II)

Award Lecture for the 2017 MSJ Algebra Prize

Masanobu Kaneko (Kyushu Univ.) On multiple zeta values · (14:30–15:30)

Award Lecture for the 2017 MSJ Algebra Prize

Mitsuyasu Hashimoto (Okayama Univ.) Commutative algebra and invariant theory · · · · · · · · · · · · · · (15:40–16:40)

Award Lecture for the 2017 MSJ Algebra Prize

Toshiyuki Katsura (Hosei Univ.) Algebraic geometry in positive characterisitc · · · · · · · · · · · · (16:50–17:50)

Geometry (Conference Room VIII)

Takayuki Okuda (Hiroshima Univ.)$^\flat$ Pairs of totally geodesic submanifolds in Riemannian symmetric spaces without common geodesics · · · · · · · · · · · · · · · · (15:50–16:50)

Functional Equations (Conference Room I)

Hisashi Nishiyama (Wakayama Univ.) Diffusion phenomena for damped wave equations · · · · · · · · · (16:30–17:30)

Real Analysis (Conference Room VII)

Kenjiro Yanagi (Josai Univ.) Entropy in classical or quantum information theory · · · · · · (17:00–18:00)

Functional Analysis (Conference Room IX)

Yasufumi Hashimoto (Univ. of Ryukyus) Distributions of multiplicities in length spectra for congruence subgroups · (16:30–17:30)

Statistics and Probability (Conference Room VI)

Gaku Igarashi (Univ. of Tsukuba) Boundary-bias-free asymmetric kernel density estimators · · (14:15–15:15)

Yasunori Fujikoshi (Hiroshima Univ.*) High-dimensional properties of the estimation methods for reduced-dimensionality based on information criteria · · · · · (15:30–16:30)

Applied Mathematics (Conference Room V)

Norbert Pozar (Kanazawa Univ.) A level set approach to the crystalline mean curvature flow · (16:50–17:50)

Topology (Conference Room IV)

Yasuyuki Miyazawa (Yamaguchi Univ.) Links with trivial Q-polynomial · (16:00–17:00)

Infinite Analysis (Conference Room III)

Ivan Chi Ho Ip (Kyoto Univ.) Positive representation and cluster realization of quantum groups · (14:15–15:15)

Akishi Kato (Univ. of Tokyo) Quiver mutation loops and partition q-series · · · · · · · · · · · · · (15:30–16:30)

March 27th (Mon)

Functional Equations (Conference Room I)

Award Lecture for the 2016 MSJ Analysis Prize

Soichiro Katayama (Osaka Univ.) Global existence and asymptotic behavior for systems of nonlinear wave equations ..... (16:30–17:30)

Real Analysis (Conference Room VII)

Yusuke Murase (Meijo Univ.) Analysis for brewing process of Japanese Sake and quasi-variational inequalities ..... (16:40–17:40)

Applied Mathematics (Conference Room V)

Shigetoshi Yazaki (Meiji Univ.) How to track the moving boundary arising in interfacial phenomena ..... (16:40–17:40)

Open Lectures for Citizens

Date: March 26th (Sun) 14:00–16:30

Venue: Large Hall, Auditorium

Sponsored by: Mathematical Society of Japan

Co-sponsored by: Department of Mathematics and Information Sciences,
Tokyo Metropolitan University

Program: Opening Speech ····· (14:00–14:10)
Motoko Kotani (President of MSJ / Tohoku Univ.)

Lecture 1: "A story on John Forbes Nash and arc spaces" ··· (14:10–15:10)
Shihoko Ishii (Tokyo Women's Christian Univ. / Univ. of Tokyo)

Lecture 2: "Real algebraic geometries
—Möbius band and tropical curves—" ····· (15:30–16:30)
Masanori Kobayashi (Tokyo Metropolitan Univ.)

Web Page: `http://mathsoc.jp/en/meeting/tmu17mar/`

Foundation of Mathematics and History of Mathematics

March 24th (Fri) Conference Room Ⅲ

9:00–11:30

1 Shigeru Masuda (Res. Workshop of Classical Fluid Dynamics) — The essential concept in a study of the mathematical physics by Laplace, Gauss and Poisson ····· 15

2 Shigeru Masuda (Res. Workshop of Classical Fluid Dynamics) — The mathematical newness of the new theory of the capillary action by Poisson ····· 15

3 Noriko Tanaka (Toyota Nishi High School) — An autobiographical note by Paul Lévy ····· 15

4 Michiyo Nakane — Joseph Fourier's course of analysis and his algebraic analysis ····· 15

5 Tanaka Shotaro ♭ — Representations of $(3k-2)^q$, $\Sigma^n(3k-2)^q$ & $\Sigma^\infty(3k-2)^q x^{k-1}$ by Suida ····· 15

6 Katsushi Waki (Yamagata Univ.), Takuma Tsuchihashi (Meiji Univ.) — Construction of WASAN data base with graphic search capability ···· 15

7 Tsukane Ogawa (Yokkaichi Univ.) — Mathematical philosophy of Aida Yasuaki ····· 15

8 Mitsuo Morimoto (Yokkaichi Univ./Sophia Univ.⋆) — On Volume 12 of the Taisei Sankei and the Tetsujutsu Sankei ····· 15

9 Makoto Tamura (Osaka Sangyo Univ.) — On the order of problems of the "Shu" housed at Yuelu Academy ···· 15

11:30–12:00 Mathematics History Team Meeting

14:15–16:40

10 Shuhei Masumoto (Univ. of Tokyo) — On a generalized Fraïssé limit construction ····· 15

11 Keita Yokoyama (JAIST) — König's lemma for a tree which has at most finitely many paths in reverse mathematics ····· 15

12 Kota Takeuchi (Univ. of Tsukuba), Akito Tsuboi (Univ. of Tsukuba) — On the number of independent strict orders ····· 10

13 Koichiro Ikeda (Hosei Univ.) — A remark on small stable theories ····· 15

14 Hirotaka Kikyo (Kobe Univ.) — On simplicity of the automorphism groups of $\mathbf{K}_f$'s ····· 15

15 Daisuke Ikegami (Tokyo Denki Univ.) — On supercompactness of ω_1 ····· 15

16 Hiroshi Sakai (Kobe Univ.) — On possible order-types of uncountable linearly ordered structures ··· 15

17 Sakaé Fuchino (Kobe Univ.) — Reflection theorems on non-exisitence of orthonormal bases of pre-Hilbert spaces ····· 15

18 Masanao Ozawa (Nagoya Univ.) — Conditional in quantum logic and Takeuti's quantum set theory: Conditionals satisfying the quantum transfer principle ····· 15

March 25th (Sat) Conference Room III

9:15–11:30

19 Takashi Oyabu ♭ Representation, and other 5 talks 5

20 Yuki Mizusawa (Tokyo Metro. Univ.), Koichiro Ban (Tokyo Metro. Univ.), Toshio Suzuki (Tokyo Metro. Univ.) 1-generic splittings of 2-c. e. degrees 15

21 Kenshi Miyabe (Meiji Univ.) Can one compute a more random set uniformly? 15

22 Kohtaro Tadaki (Chubu Univ.) A refinement of quantum mechanics by algorithmic randomness II: Discrete spectrum 15

23 Toshihiko Kurata (Hosei Univ.) Decomposition of higher-order sequentiality 15

24 Taishi Kurahashi (Kisarazu Nat. Coll. of Tech.) On partial disjunction properties and existence properties of theories of arithmetic containing PA 15

25 Sohei Iwata (Nagoya Univ.), Taishi Kurahashi (Kisarazu Nat. Coll. of Tech.) Arithmetical completeness theorem of LP (Logic of Proofs) 15

26 Takahiro Seki (Niigata Univ.) Craig's interpolation theorem for some non-associative substructural logics 15

27 Nobu-Yuki Suzuki (Shizuoka Univ.) Some omniscience principles as axiom schemata in intermediate predicate logics 15

11:30–12:00 Research Section Assembly

13:15–14:15 Talk Invited by Section on Foundation and History of Mathematics

Akitoshi Kawamura (Univ. of Tokyo) Computational complexity in analysis

---

Algebra

March 24th (Fri) Conference Room II

9:30–11:45

1 Shigeru Iitaka (Gakushuin Univ.*) On Euler's perfect numbers 10

2 Daisuke Shiomi (Yamagata Univ.), Hidetaka Kitayama (Wakayama Univ.) Irreducible Fibonacci polynomials and Lucas polynomials over finite fields 10

3 Soichi Ikeda (Shibaura Inst. of Tech.), Kaneaki Matsuoka (Nagoya Univ.) On the functional relations for Euler–Zagier multiple zeta-functions .. 10

4 Makoto Minamide (Yamaguchi Univ.), Jun Furuya (Hamamatsu Univ. School of Medicine), Yoshio Tanigawa On the functional equations for $\zeta(s)\zeta''(s)$ and $\zeta'(s)\zeta''(s)$ 10

5 Wataru Takeda (Kyoto Univ.) Visible lattice points and the Extended Riemann Hypothesis ····· 15

6 Shota Inoue (Nagoya Univ.) The Riesz mean of the Möbius function ····· 10

7 Ade Irma Suriajaya (Nagoya Univ.)
Hirotaka Akatsuka
(Otaru Univ. of Commerce)
Distribution of zeros of the first derivative of Dirichlet L-functions ··· 15

8 Tomomi Ozawa (Tohoku Univ.) Classical weight one Hilbert cusp forms in a Hida family ····· 15

9 Kohta Gejima (Osaka Univ.) An explicit formula of the unramified Shintani functions for $(\mathbf{GSp}_4, \mathbf{GL}_2 \times_{\mathbf{GL}_1} \mathbf{GL}_2)$ ····· 15

14:25–17:00

10 Toru Komatsu (Tokyo Univ. of Sci.)
Yasuhiro Kishi (Aichi Univ. of Edu.)
On a family of imaginary quadratic fields whose ideal class groups have 3-rank at least three ····· 15

11 Akiko Ito (Kanagawa Univ.)♭ On the divisibility of the class numbers of imaginary quadratic fields $\mathbb{Q}(\sqrt{2^{2s}3^{2t}-k^n})$ ····· 10

12 Ryojun Ito (Chiba Univ.) The Beilinson conjectures for CM elliptic curves via hypergeometric functions ····· 15

13 Yoshiyasu Ozeki (Kanagawa Univ.) Lattices in crystalline representations and iterated extensions ····· 10

14 Yuri Yatagawa (Univ. of Tokyo) Wild ramification of constructible sheaves and the direct images ····· 15

15 Yasuhiro Terakado (Univ. of Tokyo) The determinant and the discriminant of a complete intersection of even dimension ····· 15

16 Aiichi Yamasaki (Kyoto Univ.)
Akinari Hoshi (Niigata Univ.)
Ming-chang Kang (Nat. Taiwan Univ.)
Relation modules of dihedral groups ····· 15

17 Akinari Hoshi (Niigata Univ.)
Ming-chang Kang (Nat. Taiwan Univ.)
Aiichi Yamasaki (Kyoto Univ.)
Degree three unramified cohomology groups (II) ····· 15

18 Akinari Hoshi (Niigata Univ.)
Ming-chang Kang (Nat. Taiwan Univ.)
Aiichi Yamasaki (Kyoto Univ.)
Multiplicative invariant fields of dimension ≤ 6 ····· 15

March 25th (Sat) Conference Room II

9:00–12:00

19 Takahiro Hasebe (Hokkaido Univ.)
Shuhei Tsujie (Hokkaido Univ.)
Classifying posets by order quasisymmetric functions ····· 15

20 Nobuhiro Higuchi
(Yokohama Nat. Univ.)
Shushi Harashita
(Yokohama Nat. Univ.)
On specializations of minimal p-divisible groups ····· 15

21 Shuhei Nakamura (Nihon Univ.)
Ryuji Sasaki (Nihon Univ.)
An automorphism of order 2 in relation to the McLaughlin simple group ····· 10

22 Taro Sakurai (Chiba Univ.) When is an element of the Jennings basis central?: A relation to some Morita invariants ····· 15

23 Shuhei Kamioka (Kyoto Univ.), Kazuhiro Morii (Kyoto Univ.) — A multiplicative partition function for symmetric plane partitions · · · · 15

24 Hiroshi Naruse (Univ. of Yamanashi) — Algebraic proof and applications for the generating function formula of generalized Hall–Littlewood functions · · · · 10

25 Tomonori Hashikawa (Tohoku Univ.) — On conformal designs of minimal conformal weight spaces of SVOAs · · · · 10

26 Toshiyuki Abe (Ehime Univ.), Ching Hung Lam (Academia Sinica), Hiromichi Yamada (Hitotsubashi Univ.) — On a construction of vertex operator algebras having group-like fusion · · · · 10

27 Kazuya Kawasetsu (Academia Sinica), Yuichi Sakai — Modular linear differential equations of fourth order and minimal $\mathcal{W}$-algebras · · · · 10

28 Tomoyuki Arakawa (Kyoto Univ.), Kazuya Kawasetsu (Academia Sinica) — Quasi-lisse vertex algebras and modular linear differential equations · · · · 10

29 Tomoyuki Arakawa (Kyoto Univ.), Thomas Creutzig (Univ. of Alberta), Kazuya Kawasetsu (Academia Sinica), Andrew R. Linshaw (Univ. of Denver) — Orbifolds and cosets of minimal $\mathcal{W}$-algebras · · · · 10

30 Kazuya Kawasetsu (Academia Sinica), Ching Hung Lam (Academia Sinica), Xingjun Lin (Univ. of Tsukuba) — $\mathbb{Z}_2$-orbifold construction associated with (-1)-isometry and uniqueness of holomorphic vertex operator algebras of central charge 24 · · · · 10

31 Naoki Genra (Kyoto Univ.) — Wakimoto representations for W-algebras · · · · 15

13:30–14:30 Talk Invited by Algebra Section

Scott Carnahan (Univ. of Tsukuba) — Recent advances in Moonshine

March 26th (Sun) Conference Room II

9:15–12:00

32 So Okada (Oyama Nat. Coll. of Tech.) — BCOV rings on elliptic curves and the Dedekind eta function via meromorphic ambiguity · · · · 5

33 Momonari Kudo (Kyushu Univ.), Shushi Harashita (Yokohama Nat. Univ.) — Superspecial curves of genus 4 in small characteristic · · · · 15

34 Makoto Enokizono (Osaka Univ.) — Upper bounds on the slope of certain fibered surfaces · · · · 15

35 Shinya Kitagawa (Gifu Nat. Coll. of Tech.) — Examples of genus two fibrations with no sections on rational surfaces II · · · · 15

36 Kenta Watanabe (Nihon Univ.) — An example of a certain indecomposable Lazarsfeld–Mukai bundle · · · 10

37 Tomohiro Iwami (Kyushu Inst. of Tech.) ♭ — Quasi-thin property for the Cremona group of rank 3 and its application to a rationality of 3-folds with a pencil of rational curves · · · · 15

38 Tetsuya Ando (Chiba Univ.) — Semialgebraic varieties and symmetric inequalities of degree four with four variables · · · · 15

39 Takeshi Torii (Okayama Univ.) / Kazunori Nakamoto (Univ. of Yamanashi) — On the moduli of subalgebras of the full matrix ring of degree 3 (Part I) ····· 15

40 Yoshifumi Tsuchimoto (Kochi Univ.) — Non commutative complex projective varieties ····· 15

41 Yusuke Suyama (Osaka City Univ.) — Toric Fano varieties associated to finite simple graphs ····· 10

14:15–14:30 Presentation Ceremony for the 2017 MSJ Algebra Prize

14:30–15:30 Award Lecture for the 2017 MSJ Algebra Prize

Masanobu Kaneko (Kyushu Univ.) — On multiple zeta values

15:40–16:40 Award Lecture for the 2017 MSJ Algebra Prize

Mitsuyasu Hashimoto (Okayama Univ.) — Commutative algebra and invariant theory

16:50–17:50 Award Lecture for the 2017 MSJ Algebra Prize

Toshiyuki Katsura (Hosei Univ.) — Algebraic geometry in positive characterisitc

March 27th (Mon) Conference Room II

9:15–12:00

42 Makoto Sakurai — Beilinson's regulator and chiral algebras' regularization by OPEs ····· 15

43 Shinichi Tajima (Univ. of Tsukuba) / Katsuyoshi Ohara (Kanazawa Univ.) / Akira Terui (Univ. of Tsukuba) — Improvement of efficiency of an algorithm for calculating eigenvectors of matrices with parallelized Horner's rule for matrices ····· 15

44 Shinichi Tajima (Univ. of Tsukuba) / Katsuyoshi Ohara (Kanazawa Univ.) / Akira Terui (Univ. of Tsukuba) — Calculating matrix inverse by the extended Horner's rule with pseudo minimal polynomial ····· 15

45 Hidefumi Ohsugi (Kwansei Gakuin Univ.) / Takayuki Hibi (Osaka Univ.) — A Gröbner basis characterization for chordal comparability graphs ··· 15

46 Akiyoshi Tsuchiya (Osaka Univ.) / Takayuki Hibi (Osaka Univ.) — Facets and normality of Gorenstein Fano polytopes ····· 15

47 Akiyoshi Tsuchiya (Osaka Univ.) — Gorenstein simplices with finite abelian groups generated by few elements ····· 15

48 Kazunori Matsuda (Osaka Univ.) — Non-Koszul quadratic Gorenstein toric rings ····· 15

49 Naoki Taniguchi (Meiji Univ.) — On the almost Gorenstein property of determinantal rings ····· 15

50 Yūji Kamoi (Meiji Univ.)♭ — On Gorenstein diagonal subrings of multi-graded rings ····· 5

51 Yūji Kamoi (Meiji Univ.)♭ — On Rees algebras defined by Heneke–Ulrich ideals ····· 10

14:15–16:00

52 Kohsuke Shibata (Univ. of Tokyo) Rational singularities, ω-mutliplier ideals and cores of ideals ····· 10

53 Mitsuhiro Miyazaki (Kyoto Univ. of Edu.) Actions of special linear groups to tensors of indeterminates and standard property of a certain Ehrhart ring ····· 15

54 Masamitsu Shimakura (Tokyo Univ. of Sci.) Katsunori Sanada (Tokyo Univ. of Sci.) On the Hochschild cohomology ring of integral cyclic algebras ····· 10

55 Ayako Itaba (Shizuoka Univ.) 3-dimensional quadratic Artin–Schelter regular algebras and superpotentials ····· 15

56 Michio Yoshiwaki (Shizuoka Univ. / Osaka City Univ.) Relative derived dimensions for cotilting modules 2 ····· 15

57 Izuru Mori (Shizuoka Univ.) Kenta Ueyama (Hirosaki Univ.) 3-dimensional noetherian cubic Calabi–Yau algebras ····· 15

Geometry

March 24th (Fri) Conference Room VIII

9:45–11:45

1 Tatsuya Yamashita (Hokkaido Univ.) Localizations of derivations in C^∞-schemes ····· 15

2 Yuya Takeuchi (Univ. of Tokyo) Q-prime curvature and Sasakian η-Einstein manifolds ····· 15

3 Kotaro Kawai (Univ. of Tokyo) Second order deformations of associative submanifolds in nearly parallel G_2-manifolds ····· 15

4 Hiroshi Sawai (Numazu Nat. Coll. of Tech.) Locally conformal Kähler structures on solvmanifolds ····· 15

5 Ryosuke Nomura (Univ. of Tokyo) The positivity of the canonical bundle of compact Kähler manifold with negative holomorphic sectional curvature ····· 15

6 Satoshi Nakamura (Tohoku Univ.) On the logarithmic Chow semistability of polarized toric manifolds ··· 15

7 Kota Hattori (Keio Univ.)♭ On the moduli space of the tangent cones at infinity of a complete Ricci-flat manifold ····· 15

14:15–16:10

8 Naoyuki Koike (Tokyo Univ. of Sci.) Collapse of the mean curvature flow for a certain kind of invariant hypersurface in a Hilbert space ····· 15

9 Toru Kajigaya (Osaka City Univ.) Reductions of minimal Lagrangian submanifolds with symmetries ···· 15

10 Shintaro Akamine (Kyushu Univ.) Behavior of Gaussian curvature of timelike minimal surfaces with singularities ····· 15

11 Isami Koga (Kyushu Univ.) Yasuyuki Nagatomo (Meiji Univ.) Equivariant holomorphic embeddings from the complex projective line into a complex Grassmannian of 2-planes ····· 15

12 Shigeo Kawai (Saga Univ.*)
Nobumitsu Nakauchi (Yamaguchi Univ.)
On the stationary maps of a functional related to pullbacks of metrics 15

13 Makoto Sakaki (Hirosaki Univ.)♭
Ruled surfaces with bi-null curves and marginally trapped surfaces ... 10

14 Yoshio Agaoka (Hiroshima Univ.)
Takahiro Hashinaga (Kitakyushu Nat. Coll. of Tech.)
A necessary and sufficient condition for a 3-dimensional Riemannian manifold to be locally a submanifold of the 4-dimensional Euclidean space 15

16:20–17:20 Talk Invited by Geometry Section

Atsufumi Honda (Miyakonojo Nat. Coll. of Tech.)
Geometry of positive semi-definite metrics and isometric realization problem

March 25th (Sat) Conference Room VIII

9:20–11:30

15 Dounnu Sasaki (Waseda Univ.)
Extension of intersection number and subset currents on surfaces 15

16 Motoko Kato (Univ. of Tokyo)
Embeddings of right-angled Artin groups into higher-dimensional Thompson groups 10

17 Johannes Jaerisch (Shimane Univ.)
Katsuhiko Matsuzaki (Waseda Univ.)
Growth and cogrowth of normal subgroups of a free group 15

18 Kazuyoshi Watanabe (Tohoku Univ.)
Combinatorial differential form and Gauss–Bonnnet theorem 10

19 Taiki Yamada (Tohoku Univ.)
Curvature dimension inequality on directed graphs 10

20 Homare Tadano (Osaka Univ.)
Cheeger–Gromov–Taylor type compactness theorems via Bakry–Émery and modified Ricci curvatures 15

21 Mitsuhito Itoh (Univ. of Tsukuba)
Hiroyasu Satoh (Nippon Inst. of Tech.)
Hessian of Busemann function and rank of geodesics on Hadamard manifolds 10

22 Tetsuya Nagano (Univ. of Nagasaki)
Branching of geodesic at one point in Finsler space 15

23 Nobuhiro Innami (Niigata Univ.)
On the nearest cut point 15

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

Yu Kitabeppu (Kumamoto Univ.)♭
On regular sets in metric measure spaces

March 26th (Sun) Conference Room VIII

9:50–11:40

24 Qing Song Shi (Nagoya Inst. of Tech.)
Toshiaki Adachi (Nagoya Inst. of Tech.)
Comparison theorems on trajectory-harps II 10

25 Qing Song Shi (Nagoya Inst. of Tech.)
Toshiaki Adachi (Nagoya Inst. of Tech.)
Asymptotic behavior of trajectories on Hadamard Kähler manifolds .. 10

26 Tomoya Nakamura (Waseda Univ.)
Pseudo-Poisson Nijenhuis manifolds 15

27 Noriaki Ikeda (Ritsumeikan Univ.)
Marc Heller (Tohoku Univ.)
Satoshi Watamura (Tohoku Univ.)
A Courant algebroid on a Poisson manifold and applications to T-duality 15

28 Akifumi Sako (Tokyo Univ. of Sci.) Formulation and exact solution of matricial Φ_2^3 quantum field theory ····· 15

29 Shigehiro Sakata (Univ. of Miyazaki) Characterization of symmetry of a convex body with radial centers ····· 15

30 Jun O'Hara (Chiba Univ.) Characterization of unit balls by regularized Riesz energy ····· 15

14:15–15:35

31 Yoshinori Tanimura (Univ. of Tokyo) On the flexibility of Clifford–Klein forms whose translation groups are solvable Lie groups whose Lie algebras are graded ····· 15

32 Daisuke Tarama (Ritsumeikan Univ.)
Wolfram Bauer (Univ. Hannover) Integrability of geodesic flow on step-two nilpotent Lie groups of H-type with respect to a left-invariant metric ····· 10

33 Kaoru Ikeda (Keio Univ.)♭ Gauss decompositions of the semisimple Lie groups and the fundamental groups of the flag variety ····· 15

34 Hiroyuki Tasaki (Univ. of Tsukuba) Sequences of maximal antipodal sets in oriented real Grassmann manifolds ····· 15

35 Yusuke Sakane (Osaka Univ.⋆)
Andreas Arvanitoyeorgos (Univ. of Patras)
Marina Statha (Univ. of Patras) On homogeneous Einstein metrics on SU(n) ····· 15

15:50–16:50 Talk Invited by Geometry Section

Takayuki Okuda (Hiroshima Univ.)♭ Pairs of totally geodesic submanifolds in Riemannian symmetric spaces without common geodesics

---

Complex Analysis

March 24th (Fri) Conference Room VII

9:30–11:50

1 Saburou Saitoh ♭
(Gunma Univ.⋆/Inst. of Reproducing Kernels)
Hiroshi Fujiwara (Kyoto Univ.) The general sampling theory by using reproducing kernels ····· 15

2 Saburou Saitoh ♭
(Gunma Univ.⋆/Inst. of Reproducing Kernels)
Hiroshi Michiwaki (NejiLaw Inc.) $\log 0 = \log \infty = 0$ and applications ····· 15

3 Shigeyoshi Owa (Yamato Univ.)
Junichi Nishiwaki (Setsunan Univ.) Analytic functions concerning with some subordinations ····· 15

4 Hirokazu Shimauchi (Yamanashi Eiwa Coll.)
Ikkei Hotta (Yamaguchi Univ.) Numerical solution of the radial Loewner equation ····· 15

5 Yoshikazu Yamagishi (Ryukoku Univ.)
Takamichi Sushida (Hokkaido Univ.) Disk packings on logarithmic spiral lattices ····· 10

6 Masashi Kisaka (Kyoto Univ.)
Tomoki Kawahira (Tokyo Tech)
Abundance of semihyperbolic dynamics in the boundary of the Mandelbrot set 15

7 Takanori Matsuno
(Osaka Pref. Univ. Coll. of Tech.)
An application of strongly branched coverings 10

8 Takanori Matsuno
(Osaka Pref. Univ. Coll. of Tech.)
A remark on Hurwitz groups 10

9 Hiroshige Shiga (Tokyo Tech)
On holomorphic motions and the extension problem 15

14:15–16:05

10 Katsusuke Nabeshima
(Tokushima Univ.)
Katsuyoshi Ohara (Kanazawa Univ.)
Shinichi Tajima (Univ. of Tsukuba)
Computing parametric Bernstein-Sato ideals and holonomic D-modules 15

11 Katsuyoshi Ohara (Kanazawa Univ.)
Shinichi Tajima (Univ. of Tsukuba)
An algorithm for computing Grothendieck local residues II 15

12 Takafumi Shibuta (Kyushu Univ.)
Shinichi Tajima (Univ. of Tsukuba)
Computing invariants of isolated singularities using Matlis duality 15

13 Cho-Ho Chu
(Queen Mary Univ. of London)
Hidetaka Hamada
(Kyushu Sangyo Univ.)
Tatsuhiro Honda
(Hiroshima Inst. of Tech.)
Gabriela Kohr (Babeş-Bolyai Univ.)
Bloch functions on bounded symmetric domains 15

14 Cho-Ho Chu
(Queen Mary Univ. of London)
Hidetaka Hamada
(Kyushu Sangyo Univ.)
Tatsuhiro Honda
(Hiroshima Inst. of Tech.)
Gabriela Kohr (Babeş-Bolyai Univ.)
Composition operators between Bloch spaces on bounded symmetric domains 15

15 Hidetaka Hamada
(Kyushu Sangyo Univ.)
Weighted composition operators from H^∞ to the Bloch space of bounded symmetric domains 15

16:20–17:20 Talk Invited by Complex Analysis Section

Katsuhiko Matsuzaki (Waseda Univ.)
Teichmüller spaces of circle diffeomorphisms

March 25th (Sat) Conference Room VII

9:40–11:50

16 Makoto Abe (Hiroshima Univ.)
Gou Nakamura (Aichi Inst. of Tech.)
Strong disk property for domains in open Riemann surfaces 10

17 Tomohiro Okuma (Yamagata Univ.)
Complex surface singularities with a fixed integral homology sphere link 15

18 Tatsuhiro Honda (Hiroshima Inst. of Tech.)
Cho-Ho Chu (Queen Mary Univ. of London)
Hidetaka Hamada (Kyushu Sangyo Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)
Bonk's distortion theorem for locally biholomorphic mappings on bounded symmetric domains in $\mathbb{C}^n$ 15

19 Kouhei Izuchi (Yamaguchi Univ.)
Cyclicity of reproducing kernels in weighted Hardy spaces over the bidisk 15

20 Akio Kodama (Kanazawa Univ.) ♭
On proper holomorphic self-mappings of generalized complex ellipsoids and generalized Hartogs triangles 15

21 Atsushi Yamamori (Academia Sinica)
Liyou Zhang (Capital Normal Univ.)
On automorphisms of quasi-circular domains fixing the origin in $\mathbb{C}^2$ 10

22 Genki Hosono (Univ. of Tokyo)
Takayuki Koike (Kyoto Univ.)
On minimal singular metrics of line bundles whose stable base locus admits holomorphis tubhular neighborhoods 15

23 Kazuko Matsumoto (Tokyo Univ. of Sci.)
Takeuchi's equality for the Levi form of the Fubini-Study distance to complex submanifolds in $\mathbf{CP}^n$ 15

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

Masanori Adachi (Tokyo Univ. of Sci.)
Function theory on Levi-flats: case study on flat circle bundles

---

Functional Equations

March 24th (Fri) Conference Room I

9:30–12:00

1 Ichiro Tsukamoto (Toyo Univ.) ♭
Asymptotic behaviour of positive solutions of $x'' = t^{\alpha\lambda-2}x^{1+\alpha}$ in the remaining cases 10

2 Yoshiaki Goto (Otaru Univ. of Commerce)
Keiji Matsumoto (Hokkaido Univ.)
Irreducibility of the monodromy representation of Lauricella's F_C 12

3 Junya Nishiguchi (Kyoto Univ.)
A necessary and sufficient condition for well-posedness of initial value problems of retarded functional differential equations 12

4 Shogo Yamanaka (Kyoto Univ.)
Local analytic integrability of Poincaré–Dulac normal forms 12

5 Daiki Sugawara (Meiji Univ.)
Hiroshi Watanabe (Meiji Univ.)
An epidemic model of two kinds of type A influenza 12

6 Seiji Saito (Doshisha Univ.)
Satoshi Ito (Doshisha Univ.)
Oscillatory theorems concerning linear and non-linear difference equations 10

7 Seiji Saito (Doshisha Univ.)
Synsuke Ikezoe (Doshisha Univ.)
Kenta Nozue (Doshisha Univ.)
Globally asymptotical stability of SI models concerning difference equations 10

8 Tetsutaro Shibata (Hiroshima Univ.) Oscillatory bifurcation for semilinear ordinary differential equations · · 12

9 Saburou Saitoh ♭ (Gunma Univ.*/Inst. of Reproducing Kernels); L. P. Castro (Univ. of Aveiro); M. M. Rodrigues (Univ. of Aveiro) A fundamental theorem on initial value problems by using the theory of reproducing kernels · · · · · 5

10 Saburou Saitoh ♭ (Gunma Univ.*/Inst. of Reproducing Kernels); Sandra Pinelas (Academia Militar) Division by zero z/0=0 and differential equations · · · · · 5

14:15–16:15

11 Takashi Kajiwara (Tokyo Metro. Univ.) Existence of a heteroclinic solution to the FitzHugh–Nagumo type reaction-diffusion system with heterogeneity · · · · · 12

12 Kazuyuki Yagasaki (Kyoto Univ.); Shotaro Yamazoe (Kyoto Univ.) Bifurcation of equilibria in infinite-dimensional Hamiltonian system and its application to nonlinear Schrödinger equation · · · · · 12

13 Megumi Sano (Osaka City Univ.); Futoshi Takahashi (Osaka City Univ.) Sublinear eigenvalue problems with singular weights related to the critical Hardy inequality · · · · · 10

14 Megumi Sano (Osaka City Univ.) Minimization problems related to generalized critical Hardy inequalities on a bounded domain · · · · · 12

15 Masato Hashizume (Osaka City Univ.) Minimization problem on the Hardy–Sobolev inequality in lower dimension case · · · · · 12

16 Toshiaki Yachimura (Tohoku Univ.) Singular perturbation of domains and two-phase eigenvalue problem · · · · · 12

17 Albert Rodríguez Mulet (Hokkaido Univ.) Eigenfrequencies of a thin straight elastic body · · · · · 12

18 Xiaojing Liu (Ibaraki Univ.); Toshio Horiuchi (Ibaraki Univ.) Improved Kato's inequalities involving p-Laplacian and their application · · · · · 12

19 Kenichiro Umezu (Ibaraki Univ.); Uriel Kaufmann (Univ. Nacional de Córdoba); Humberto Ramos Quoirin (Univ. de Santiago de Chile) Positivity for nontrivial nonnegative solutions of an indefinite sublinear problem · · · · · 12

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

Kazuki Hiroe (Josai Univ.) Around accessory parameters of linear ordinary differential equations

March 25th (Sat) Conference Room I

9:30–12:00

20 Shun Kodama Concentration phenomena of least energy solutions to several singularly perturbed elliptic problems with a totally degenerate potential · · · · · 12

21 Shoichi Hasegawa (Tohoku Univ.) Two critical exponents for a Hénon type equation on the hyperbolic space · · · · · 12

22 Satoshi Tanaka (Okayama Univ. of Sci.) Symmetry-breaking bifurcation for the one-dimensional Hénon equation · · · · · 12

23 Motohiro Sobajima (Tokyo Univ. of Sci.)
Giorgio Metafune (Univ. of Salento)
Chiara Spina (Univ. of Salento)
Kernel estimates for analytic semigroups generated by $|x|^{\alpha}\Delta$ with lower order terms ····· 12

24 Yasuhito Miyamoto (Univ. of Tokyo)
Kazune Takahashi (Univ. of Tokyo)
Generalized Joseph–Lundgren exponent and intersection properties for supercritical quasilinear elliptic equations ····· 10

25 Yasuhiro Fujita (Univ. of Toyama)
Norikazu Yamaguchi (Univ. of Toyama)
On a corresponding structure between a Hamilton–Jacobi equation and the Takagi function ····· 12

26 Tokinaga Namba (Univ. of Tokyo)
Yoshikazu Giga (Univ. of Tokyo)
Hamilton–Jacobi equations with Caputo's time-fractional derivative ·· 12

27 Hiroyoshi Mitake (Hiroshima Univ.)
Diogo A. Gomes (King Abdullah Univ. of Sci. and Tech.)
Hung V. Tran (Univ. of Wisconsin-Madison)
The Selection problem for discount Hamilton–Jacobi equations: some non-convex cases ····· 12

28 Hiroyoshi Mitake (Hiroshima Univ.)
Kohei Soga (Keio Univ.)
The selection problem for discount Hamilton–Jacobi equations: rate of convergence ····· 12

13:30–14:30 Award Lecture for the 2016 MSJ Analysis Prize

Shigeaki Koike (Tohoku Univ.) ABP maximum principle for L^p-viscosity solutions of fully nonlinear equations and its applications

March 26th (Sun) Conference Room I

9:30–12:00

29 Tatsu-Hiko Miura (Univ. of Tokyo) Zero width limit of the heat equation on moving thin domains ····· 12

30 Junichi Harada (Akita Univ.) Boundary behavior for solutions of the heat equation with a nonlinear boundary condition ····· 10

31 Masaaki Mizukami (Tokyo Univ. of Sci.) Boundedness and asymptotic stability in a fully parabolic two-species chemotaxis-competition model ····· 12

32 Takayoshi Ogawa (Tohoku Univ.)
Hiroshi Wakui (Tohoku Univ.)
Non-uniform bound and non-existence for time global solutions to a degenerate drift-diffusion equation with the mass critical exponent ··· 12

33 Keisuke Takasao (Univ. of Tokyo) Existence of weak solution and monotonicity formula for volume preserving mean curvature flow ····· 10

34 Takashi Suzuki (Osaka Univ.) Reaction diffusion systems on (fundamental) chemical processes of multi-species: homogenezation of the renormalized solution ····· 5

35 Takashi Suzuki (Osaka Univ.) Global-in-time behavior of the solution to a parabolic equation with non-local term derived form the Gierer–Meinhardt system ····· 5

36 Toshitaka Nagai
Tetsuya Yamada (Fukui Nat. Coll. of Tech.)
Global existence of solutions to the Cauchy problem of an attraction-repulsion chemotaxis system in $\mathbb{R}^2$ ····· 12

37 Hajime Koba (Osaka Univ.) On conservative forms and conservation laws of compressible fluid systems on an evolving surface ····· 12

38 Hirotada Honda (NTT/Keio Univ.)
Atusi Tani (Keio Univ.*)
On existence of stationary solution to Kuramoto–Sakaguchi equation ····· 12

14:15–16:15

39 Naoki Tsuge (Gifu Univ.) Isentropic gas flow in the nozzle · · · · · 12

40 Mamoru Okamoto (Shinshu Univ.) Asymptotic behavior of solutions to the short-pulse equation · · · · · 10

41 Tetu Makino (Yamaguchi Univ.*)
Juhi Jang (Univ. Southern California) Slowly rotating axisymmetric solutions of Euler–Poisson equations · · · 12

42 Hirokazu Saito (Waseda Univ.) Compressible fluid model of Korteweg type with free boundary condition: model problem · · · · · 12

43 Yuka Teramoto (Kyushu Univ.) On the stability of bifurcating solutions of the artificial compressible system · · · · · 12

44 Kyouhei Wakasa (Muroran Inst. of Tech.)
Borislav Yordanov (Hokkaido Univ.) On the energy decay for dissipative nonlinear wave equations in one space dimension · · · · · 10

45 Takuto Imai (Future Univ. Hakodate)
Hiroyuki Takamura (Future Univ. Hakodate)
Kyouhei Wakasa (Muroran Inst. of Tech.)
Masakazu Kato (Muroran Inst. of Tech.) The sharp lower bound of the lifespan of solutions to semilinear wave equations with low power in two space dimensions · · · · · 12

46 Yuta Wakasugi (Nagoya Univ.)
Motohiro Sobajima (Tokyo Univ. of Sci.) Diffusion phenomena for the wave equation with space-dependent damping in an exterior domain · · · · · 10

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

Hisashi Nishiyama (Wakayama Univ.) Diffusion phenomena for damped wave equations

March 27th (Mon) Conference Room I

9:15–12:00

47 Shouta Enomoto (Kyushu Univ.)
Yoshiyuki Kagei (Kyushu Univ.)
Mohamad Nor Azlan Stability of space-time periodic states to the compressible Navier–Stokes equation in an infinite layer · · · · · 12

48 Abulizi Aihaiti (Kyushu Univ.)
Yoshiyuki Kagei (Kyushu Univ.) Large time behavior of solutions to the compressible Navier–Stokes equations in a cylinder under the slip boundary condition · · · · · 12

49 Paolo Maremonti (Second Univ. Naples)
Senjo Shimizu (Kyoto Univ.) Global existence of solutions to 2-D Navier–Stokes flow with non-decaying initial data in exterior domains · · · · · 12

50 Hideo Kozono (Waseda Univ.)
Senjo Shimizu (Kyoto Univ.) Strong solutions of the Navier–Stokes equations based on the maximal Lorentz regularity theorem in Besov spaces · · · · · 12

51 Ken Abe (Kyoto Univ.) Global well-posedness of the two-dimensional exterior Navier–Stokes equations for non-decaying data · · · · · 10

52 Takahiro Okabe (Hirosaki Univ.)
Yohei Tsutsui (Shinshu Univ.) Time periodic strong solutions to the incompressible Navier–Stokes equations with external forces of non-divergence form · · · · · 12

53 Kengo Nakai (Tokyo Tech) Direction of vorticity and a refined blow-up criterion for the Navier–Stokes equations with fractional Laplacian · · · · · 12

54 Kengo Nakai (Tokyo Tech)
Yoshitaka Saiki (Hitotsubashi Univ.)
Tsuyoshi Yoneda (Univ. of Tokyo)
Disturbance of the direction vector of vorticity in Hatakeyama–Kambe turbulence model 12

55 Misaki Hirata (Tokyo Univ. of Sci.)
Shunsuke Kurima (Tokyo Univ. of Sci.)
Masaaki Mizukami (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
Global existence and boundedness in a 2D two-species chemotaxis-Navier–Stokes system with logistic source 12

56 Hideo Kozono (Waseda Univ.)
Yoshie Sugiyama (Kyushu Univ.)
Masanari Miura (Kyushu Univ.)
Existence and uniqueness theorem on mild solutions to the Keller–Segel system coupled with the Navier–Stokes fluid 12

57 Yoshihiro Shibata (Waseda Univ.)
On L_p-L_q decay estimate for Stokes equations with free boudary condition in an exterior domain 10

58 Yoshihiro Shibata (Waseda Univ.)
Global wellposedness for the free boundary problem of the Navier–Stokes equations in an exterior domain 10

14:15–16:15

59 Teppei Kobayasi (Meiji Univ.)
The Green matrix and the Green formulas of the Stokes equations for a half space 12

60 Ryosuke Hyakuna (Waseda Univ.)
Well-posedness of the Hartree type equation 10

61 Gaku Hoshino (Waseda Univ.)
Leibniz rule for pseudo-conformal generator and its application to analytic smoothing effect for non pseudo-conformally invariant nonlinear Schrödinger equations 12

62 Masayuki Hayashi (Waseda Univ.)
Takahisa Inui (Kyoto Univ.)
Noriyoshi Fukaya (Tokyo Univ. of Sci.)
Global well-posedness for a generalized derivative nonlinear Schrödinger equation 12

63 Hideaki Sunagawa (Osaka Univ.)
Chunhua Li (Yanbian Univ.)
Remarks on derivative nonlinear Schrödinger systems with multiple masses 12

64 Toshiyuki Suzuki (Kanagawa Univ./Kogakuin Univ.)
Constraction of wave operators for nonlinear Schrödinger equations of L^2-super-critical cases with inverse-square potentials 12

65 Sojiro Murai (Tokyo Metropolitan Coll. of Indus. Tech.)
Strichartz estimates for wave equation with magnetic potential in exterior domain 10

66 Hayato Miyazaki (Tsuyama Nat. Coll. of Tech.)
Satoshi Masaki (Osaka Univ.)
Long range scattering for nonlinear Schrödinger equations with critical homogeneous nonlinearity 12

67 Satoshi Masaki (Osaka Univ.)
Jun-ichi Segata (Tohoku Univ.)
Modified scattering for the gauge-invariant quadratic nonlinear Klein–Gordon equation in two dimensions 12

16:30–17:30 Award Lecture for the 2016 MSJ Analysis Prize

Soichiro Katayama (Osaka Univ.)
Global existence and asymptotic behavior for systems of nonlinear wave equations

Real Analysis

March 26th (Sun) Conference Room VII

9:00–11:55

14:15–16:50

17 Yukino Tomizawa (Chuo Univ.)
Ken-Ichi Mitani (Okayama Pref. Univ.)
Kichi-Suke Saito (Niigata Univ.*)
Ryotaro Tanaka (Kyushu Univ.)
Geometric constants of rotation invariant norms 15

18 Ryotaro Tanaka (Kyushu Univ.)
On properties of extreme points of von Neumann algebras and its application to Tingley's problem 15

19 Hiroyasu Mizuguchi (Niigata Univ.)
The difference between two orthogonality notions in Radon planes ... 15

20 Kichi-Suke Saito (Niigata Univ.)
Naoto Komuro (Hokkaido Univ. of Edu.)
Ryotaro Tanaka (Kyushu Univ.)
Matrix norm of James constant and its applications 15

21 Mikio Kato (Kyushu Inst. of Tech.*)
Takayuki Tamura (Chiba Univ.)
Some recent results on direct sums of Banach spaces 15

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

Kenjiro Yanagi (Josai Univ.)
Entropy in classical or quantum information theory

March 27th (Mon) Conference Room VII

9:00–11:40

22 Takanobu Hara (Tokyo Metro. Univ.)
The Wolff potential estimate for solutions to elliptic equations with signed data 15

23 Masaaki Mizukami (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
A unified method for boundedness in Keller–Segel systems with signal-dependent sensitivity 15

24 Shunsuke Kurima (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
Existence of solutions to nonlinear diffusion equations and their approximations with error estimates 15

25 Takanori Kuroda (Waseda Univ.)
Mitsuharu Ôtani (Waseda Univ.)
Finite time blow-up for a Ginzburg–Landau equation without linear term 15

26 Shun Uchida (Waseda Univ.)
Mitsuharu Ôtani (Waseda Univ.)
On the maximality of sum of maximal monotone operators in a Hilbert space 15

27 Hiroki Sano (Shizuoka Univ.)
Naoki Tanaka (Shizuoka Univ.)
Well-posedness for semilinear functional differential equations and its applications 15

28 Dai Noboriguchi (Kushiro Nat. Coll. of Tech.)
Kazuo Kobayasi (Waseda Univ.)
Well-posedness of nonhomogeneous Dirichlet problem for stochastic scalar conservation laws 10

29 Yutaka Tsuzuki (Hiroshima Shudo Univ.)
Solvability of Vlasov–Poisson systems with errors in magnetic field in a half-space 15

30 Hiroshi Watanabe (Oita Univ.)
Global solutions to nonlocal strongly degenerate parabolic systems with variable coefficients 15

31 Makoto Nakamura (Yamagata Univ.)
On the derivation of several second order partial differential equations from the Einstein equation 10

32 Makoto Nakamura (Yamagata Univ.)
On the nonrelativistic limit of a semilinear field equation in uniform and isotropic space 10

14:15–16:25

33 Risei Kano (Kochi Univ.)
Takeshi Fukao (Kyoto Univ. of Edu.)
The existence of solutions for the perfect plasticity model ····· 15

34 Ken Shirakawa (Chiba Univ.)
Hiroshi Watanabe (Oita Univ.)
J. Salvador Moll (Univ. Valencia)
Phase-field model of grain boundary motion including inhomogeneous Dirichlet type boundary condition ····· 15

35 Ryota Nakayashiki (Chiba Univ.)
Ken Shirakawa (Chiba Univ.)
Allen–Cahn type equations involved in singular diffusions and dynamic boundary conditions ····· 15

36 Takeshi Fukao (Kyoto Univ. of Edu.)
Noriaki Yamazaki (Kanagawa Univ.)
A boundary control problem for GMS model ····· 15

37 Hirokazu Komatsu (Kinki Univ.)
Hiroyuki Nakajima (Kinki Univ.)
An analysis of ordinary differential equations that describe non-weakly reversible chemical reaction networks ····· 15

38 Akio Ito
Komatsu Hirokazu (Kinki Univ.)
Nakajima Hiroyuki (Kinki Univ.)
Asymptotic stability of an equilibrium point for a biochemical reaction network constructed by cardiac hypertrophy factors ····· 15

39 Kota Kumazaki
(Tomakomai Nat. Coll. of Tech.)
A free boundary problem describing adsorption phenomenon in porous materials ····· 15

40 Toyohiko Aiki (Japan Women's Univ.)
Sergey A. Timoshin
(Siberian Branch Russian Acad. Sci.)
On existence and uniqueness for solutions of one-dimensional moisture transport equation appearing in concrete carbonation process ····· 15

16:40–17:40 Talk Invited by Real Analysis Section

Yusuke Murase (Meijo Univ.)
Analysis for brewing process of Japanese Sake and quasi-variational inequalities

---

Functional Analysis

March 24th (Fri) Conference Room IX

14:15–16:00

1 Sohei Ashida (Kyoto Univ.)
Exponential bound on the widths of molecular predissociation resonances ····· 15

2 Hiroaki Niikuni
(Maebashi Inst. of Tech.)
On the spectra of periodic Schrödinger operators on a super carbon nanotube ····· 15

3 Daichi Komori (Hokkaido Univ.)
Intuitive representation of local cohomology groups ····· 15

4 Hiroyuki Yamagishi
(Tokyo Metropolitan Coll. of Indus. Tech.)
Yoshinori Kametaka (Osaka Univ.*)
The best constant of discrete Sobolev inequalities on C36 ····· 15

5 Toru Fuda (Hokkaido Univ.)
Daiju Funakawa (Hokkaido Univ.)
Akito Suzuki (Shinshu Univ.)
Localization and eigenvalues of a multi-dimensional quantum walk with one-defect. ····· 15

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

Koichi Kaizuka (Gakushuin Univ.) Stationary scattering theory for invariant differential operators on symmetric spaces of noncompact type

March 25th (Sat) Conference Room IX

9:00–12:00

6 Chungchuan Chen (Nat. Taichung Univ. of Edu.) Topological dynamics on linear operators 15

7 Masaru Nagisa (Chiba Univ.) Operator monotone rational function and its application 15

8 Hiroaki Tohyama (Maebashi Inst. of Tech.), Hiroshi Isa (Maebashi Inst. of Tech.), Masatoshi Ito (Maebashi Inst. of Tech.), Eizaburo Kamei, Masayuki Watanabe (Maebashi Inst. of Tech.) Relative operator entropies and operator valued divergences via divided difference 15

9 Yuki Seo (Osaka Kyoiku Univ.) An interpolation of Jensen's inequality and its applications to mean inequalities 10

10 Takeaki Yamazaki (Toyo Univ.) Some norm inequalities for matrix means 10

11 Junichi Fujii (Osaka Kyoiku Univ.) Around the manifold of the positive invertible operators 15

12 Rumi Shindo Togashi (Nagaoka Nat. Coll. of Tech.), Miura Takeshi (Niigata Univ.), Honma Dai (Uchida Yoko IT Solutions Co.) Characterizations related to the products and the spetral radius for the real-algebra isomorphisms between unital semi-simlple commutative Banach algebras 15

13 Takeshi Miura (Niigata Univ.) Properties of isometries between function spaces 15

14 Sin-Ei Takahasi (Yamagata Univ.*), Takeshi Miura (Niigata Univ.), Hiroyuki Takagi (Shinshu Univ.), Junji Inoue (Hokkaido Univ.*) A classification of semisimple commutative Banach algebras of type I 15

15 Osamu Hatori (Niigata Univ.) Hermitian operators on vector-valued Lipschitz algebras 15

16 Osamu Hatori (Niigata Univ.) Commutativity via gyrogroup operations 15

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

Kazuhiro Kawamura (Univ. of Tsukuba) Some Banach–Stone type theorems

March 26th (Sun) Conference Room IX

9:30–12:00

17 Sakaé Fuchino (Kobe Univ.) Pre-Hilbert spaces without orthonormal bases 15

18 Kengo Matsumoto (Joetsu Univ. of Edu.) Relative Morita equivalence of C*-algebras and flow equivalence of topological Markov shifts 15

19 Yasuo Watatani (Kyushu Univ.)
Tsuyoshi Kajiwara (Okayama Univ.)
C*-algebras associated with complex dynamical systems or self-similar maps and their maximal abelian subalgebras and dimension groups of the cores ····· 15

20 Tomohiro Kanda (Kyushu Univ.) ♭
Taku Matsui (Kyushu Univ.)
The existence and the uniqueness of regular KMS states on the resolvent CCR algebra ····· 10

21 Kei Hasegawa (Kyushu Univ.)
Bass–Serre trees of amalgamated free product C*-algebras ····· 15

22 Toshihiko Masuda (Kyushu Univ.)
Classification of Roberts actions of strongly amenable C*-tensor categories on the injective factor of type III_1 ····· 15

23 Reiji Tomatsu (Hokkaido Univ.)
Continuous crossed product decomposition of an ultraproduct von Neumann algebras ····· 15

24 Takahiro Hasebe (Hokkaido Univ.)
Marek Bozejko (Univ. of Wroclaw)
Wiktor Ejsmont (Wroclaw Univ. of Econ.)
Fock space of type D ····· 15

14:15–16:15

25 Yasumichi Matsuzawa (Shinshu Univ.) ♭
Hiroshi Ando (Chiba Univ.)
Groups of unitaries without property (FH) ····· 15

26 Hiroshi Ando (Chiba Univ.)
Yasumichi Matsuzawa (Shinshu Univ.)
Andreas Thom (TU Dresden)
Asger Törnquist (Univ. Copenhagen)
Unitarizability, Maurey–Nikishin factorization and Polish groups of finite type ····· 15

27 Tatsuya Tsurii (Osaka Pref. Univ.)
Finite hypergroups and finite graphs ····· 15

28 Hideyuki Ishi (Nagoya Univ. / JST PRESTO)
Atsumi Ohara (Univ. of Fukui)
An invariant potential under a group action on a Hessian domain ···· 15

29 Hiroshi Oda (Takushoku Univ.)
Nobukazu Shimeno (Kwansei Gakuin Univ.)
Spherical functions for small K-types ····· 15

30 Toshiyuki Kobayashi (Univ. of Tokyo / Univ. of Tokyo)
Oleksii Leontiev (Univ. of Tokyo)
Symmetry breaking of conformal transformation group $O(p,q)$ ····· 15

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

Yasufumi Hashimoto (Univ. of Ryukyus)
Distributions of multiplicities in length spectra for congruence subgroups

Statistics and Probability

March 24th (Fri) Conference Room VI

9:45–12:00

1 Yong Moo Chung (Hiroshima Univ.), Hiroki Takahasi (Keio Univ.), Juan Rivera-Letelier (Univ. Rochester) — Quadratic maps with flat rate function ····· 15

2 Isamu Dôku (Saitama Univ.) — On the compact support of superprocess determined by a random measure ····· 15

3 Shigeyoshi Ogawa (Ritsumeikan Univ.), Hideaki Uemura (Aichi Univ. of Edu.) — On strong inversion formulas of the natural SFT ····· 10

4 Atsushi Takeuchi (Osaka City Univ.) — Malliavin calculus for marked Hawkes processes ····· 15

5 Yuki Suzuki (Keio Univ.) — A diffusion process with a contracted Brownian potential ····· 15

6 Dai Taguchi (Ritsumeikan Univ.), Libo Li (Univ. of New South Wales) — On the Euler–Poisson scheme for SDEs with positive jumps and Hölder continuous coefficient ····· 10

7 Hideo Nagai (Kansai Univ.) — Large deviation control for quadratic semi-martingale functionals ···· 15

8 Hideo Nagai (Kansai Univ.) — Large deviation control under model uncertainty ····· 12

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

Tomoyuki Ichiba (Univ. of California, Santa Barbara) — Stochastic analysis for collision of Brownian particles

15:30–16:30 Award Lecture for the 2016 MSJ Analysis Prize

Tomohiro Sasamoto (Tokyo Tech) — The KPZ equation and integrable stochastic interacting systems

March 25th (Sat) Conference Room VI

9:50–11:30

9 Masayuki Horiguchi (Kanagawa Univ.) — On a multivariate Bayesian control problem in Markov decision processes ····· 15

10 Noboru Nomura (Kochi Univ.) — Evaluation procedure of orthant probabilities with conditional distribution in subspaces ····· 10

11 Hayato Takahashi — Recent progress on random sequences with respect to conditional probabilities ····· 15

12 Yujie Xue (Waseda Univ.), Taniguchi Masanobu (Waseda Univ.) — Local Whittle likelihood approach for L^p-norm spectra ····· 10

13 Fumiya Akashi (Waseda Univ.), Jianqing Fan (Princeton Univ.) — Self-normalized and random weighting approach to likelihood ratio test for the model diagnostics of stable processes ····· 15

14 Fumiya Akashi (Waseda Univ.), Shuyang Bai (Univ. of Georgia), Murad S. Taqqu (Boston Univ.) — Quantile regression-based self-normalized block sampling method for linear regression model with dependent errors ····· 15

15 Katusi Fukuyama (Kobe Univ.)
Shinji Sakaguchi (Aioi Nissay Dowa Insurance)
Osamu Shimabe (Hamada Electrical Industries)
Martina Tscheckl (Kobe Univ.)
Metric discrepancy results for geometric progressions with ratios 3/2, 4/3, 8/3, 10/3, 13/6 and 17/8 ····· 5

11:30–12:00 Research Section Assembly

13:30–14:30

16 Yan Liu (Waseda Univ.)
Kun Chen (Southwestern Univ. of Finance and Economics)
Ngai Hang Chan (Chinese Univ. of Hong Kong)
Masanobu Taniguchi (Waseda Univ.)
A frequency domain bootstrap for irregularly spaced spatial data ···· 15

17 Yurie Tamura (Waseda Univ.)
Masanobu Taniguchi (Waseda Univ.)
Asymptotic theory of sphericity test statistic for high-dimensional time series ····· 10

18 Yoshiyuki Tanida (Waseda Univ.)
Masanobu Taniguchi (Waseda Univ.)
Asymptotic theory of Whittle estimator for high dimensional time series ····· 10

19 Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)
Consistency for high-dimensional eigenvectors ····· 15

March 26th (Sun) Conference Room VI

9:50–12:00

20 Shuhei Mano (Inst. of Stat. Math.)
Multiplicative measure on partitions and the A-hypergeometric system associated with the rational normal curve ····· 15

21 Tomonari Sei (Univ. of Tokyo)
Stein-type identity derived from coordinate-wise transformations ····· 15

22 Tamio Koyama (Shiga Univ.)
An integral formula for the powered sum of the independent, identically and normally distributed random variables ····· 15

23 Yoshihiko Maesono (Kyushu Univ.)
Rizky Reza Fauzi (Kyushu Univ.)
Modified gamma kernel density estimator ····· 10

24 Daisuke Nemoto (Tokyo Univ. of Sci.)
Kiyotaka Iki (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Generalized diagonal exponent conditional symmetry model and decomposition for square contingency tables with ordered categories ···· 10

25 Hiroshi Nakano (Tokyo Univ. of Sci.)
Kiyotaka Iki (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Measure of departure from marginal homogeneity using marginal odds for square contingency tables with ordered categories ····· 10

26 Norito Takeda (Tokyo Univ. of Sci.)
Kiyotaka Iki (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Measure of departure from symmetry using cumulative probabilities for square contingency tables ····· 10

27 Tomohisa Maruyama (Tokyo Univ. of Sci.)
Yusuke Saigusa (Tokyo Univ. of Sci.)
Kouji Tahata (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Decomposition of marginal homogeneity using model based on complementary log-log transform for square contingency tables ····· 10

28 Yutaro Kubo (Tokyo Univ. of Sci.)
Yusuke Saigusa (Tokyo Univ. of Sci.)
Koji Tahata (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
A measure of departure from partial marginal homogeneity for square contingency tables 10

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

Gaku Igarashi (Univ. of Tsukuba) Boundary-bias-free asymmetric kernel density estimators

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

Yasunori Fujikoshi (Hiroshima Univ.*) High-dimensional properties of the estimation methods for reduced-dimensionality based on information criteria

March 27th (Mon) Conference Room VI

9:50–12:00

29 Jo Suzuki (Osaka Univ.) Mutual information estimation of continuous variables: Consistency 15

30 Shintaro Hashimoto (Hiroshima Univ.) Robust estimation of asymmetric location-scale family by using log-regularly varying function 15

31 Koji Tsukuda (Univ. of Tokyo) On Poisson approximations for the Ewens sampling formula with large parameters 15

32 Kou Fujimori (Waseda Univ.)
Yoichi Nishiyama (Waseda Univ.)
The Dantzig selector for diffusion processes with covariates 10

33 Hirofumi Wakaki (Hiroshima Univ.) On a model selection criterion for a linear mixed model 15

34 Masahide Kuwada (Int. Inst. for Nat. Sci.)
Yoshifumi Hyodo (Okayama Univ. of Sci. / Int. Inst. for Nat. Sci.)
Hiromu Yumiba (Int. Inst. for Nat. Sci.)
Characteristics of balanced third-order designs of resolution $\mathrm{R}^*(\{10, 01\})$ with $N < \nu(m)$ and $\mathrm{NSV}_2 \geq 1$ for 3^m factorials 15

35 Kazuki Matsubara (ChuoGakuin Univ.)
Sanpei Kageyama (Tokyo Univ. of Sci.)
Some existence of hierarchical 3-designs 15

36 Shoko Chisaki (Tokyo Univ. of Sci.)
Yui Kimura (Tokyo Univ. of Sci.)
Nobuko Miyamoto (Tokyo Univ. of Sci.)
A recursive construction of difference systems of sets 10

Applied Mathematics

March 24th (Fri) Conference Room V

10:30–11:45

1 Kazuhiko Ushio Balanced C_{10}-foil designs and related designs 15

2 Diogo Kendy Matsumoto (Shibaura Inst. of Tech.) — Navigation groupoids and its application · · · · · 15

3 Yutaro Sakamoto (Univ. of Electro-Comm.) — Hamilton cycles in double generalized Petersen graphs · · · · · 15

4 Kenta Noguchi (Tokyo Denki Univ.) — 2-cell embeddings of optimal 1-planar graphs · · · · · 15

14:15–15:30

5 Rachel Bass (Georgia Southern Univ.), Colton Magnant (Georgia Southern Univ.), Kenta Ozeki (Nat. Inst. of Information / JST ERATO), Brian Pyron (Georgia Southern Univ.) — Characterization of edge-colorings of complete graphs with forbidden rainbow subgraphs · · · · · 10

6 Shinya Fujita (Yokohama City Univ.) — Partition problem on edge-colored graphs · · · · · 10

7 Jun Fujisawa (Keio Univ.), Robert E. L. Aldred (Univ. of Otago), Akira Saito (Nihon Univ.) — Edge proximity conditions for matching extendability of graphs · · · · · 15

8 Chie Nara (Meiji Univ.), Jin-ichi Itoh (Kumamoto Univ.), Erik D. Demaine (MIT), Martin L. Demaine (MIT) — Continuous flattening of orthogonal polyhedra · · · · · 15

15:50–16:50 Talk Invited by Applied Mathematics Section

Ying Miao (Univ. of Tsukuba)♭ — Combinatorics of Digital Fingerprinting

March 25th (Sat) Conference Room V

10:00–11:45

9 Tomoya Machide (Nat. Inst. of Information / JST ERATO) — Symmetric sum of regularized multiple zeta values and set partition · · · · · 15

10 Hideo Mitsuhashi (Utsunomiya Univ.), Norio Konno (Yokohama Nat. Univ.), Iwao Sato (Oyama Nat. Coll. of Tech.) — Quaternionic second weighted zeta functions of finite graphs · · · · · 15

11 Iwao Sato (Oyama Nat. Coll. of Tech.), Norio Konno (Yokohama Nat. Univ.), Etsuo Segawa (Tohoku Univ.) — The spectra of the time evolution matrices of Szegedy walk and SQW · · · · · 15

12 Kei Saito (Yokohama Nat. Univ.) — The quaternionic quantum walk on the one-dimensional lattice · · · · · 15

13 Takashi Komatsu (Yokohama Nat. Univ.), Hikari Kawai (Yokohama Nat. Univ.), Norio Konno (Yokohama Nat. Univ.), Seiya Yoshida (Yokohama Nat. Univ.) — Stationary measures of three-state quantum walks on the one-dimensional integer lattice · · · · · 15

14 Akito Suzuki (Shinshu Univ.) — Weak limit theorem for two-dimensional two-state quantum walks with position dependent coins · · · · · 15

14:00–14:15 Presentation Ceremony for the 2016 MSJ Prize for Excellent Young Applied Mathematicians

March 26th (Sun) Conference Room V

9:30–12:00 Special Session "Modern trends on the theory of convex polytopes"

Satoshi Murai (Osaka Univ.) Recent developments on face numbers of convex polytopes ····· 40

Akihiro Higashitani (Kyoto Sangyo Univ.) History and future of the theory of lattice polytopes ····· 40

Takayuki Hibi (Osaka Univ.) Let's listen a trio of convex polytopes, commutative algebra and statistics ····· 40

14:15–16:30

15 Masayuki Akamatsu (Japan Coast Guard Academy) Dual problem for bivariate function by perturbarion function ····· 15

16 Shunzi Horiguchi (Niigata Sangyo Univ.) Extended complex Newton's method and Riemann surface, various formulas to compare convergences ····· 10

17 Fuminori Sakaguchi (Univ. of Fukui) On the hyperfunction components of extra solutions in an integer-type algorithm for ODEs ····· 15

18 Kohji Ohtsuka (Hiroshima Kokusai Gakuin Univ.) Examination about shape optimization of singular points in consideration of the shape sensitivity by gneralized J-integral ····· 15

19 Takehiko Kinoshita (Kyoto Univ.), Yoshitaka Watanabe (Kyushu Univ.), Mitsuhiro T. Nakao (Kyushu Univ.) Some remarks on the lower bounds of resolvent for compact operators ····· 15

20 Yuki Chiba (Univ. of Tokyo), Norikazu Saito (Univ. of Tokyo) L^∞ error estimates of discontinuous Galerkin methods for Poisson equation on non-convex polygonal domain ····· 15

21 Takuya Tsuchiya (Ehime Univ.), Kenta Kobayashi (Hitotsubashi Univ.) Approximating surface area by interpolations on triangulations ····· 15

22 Masahisa Tabata (Waseda Univ.) Convergence of the upwind-element choice scheme for the Navier–Stokes equations ····· 15

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

Norbert Pozar (Kanazawa Univ.) A level set approach to the crystalline mean curvature flow

March 27th (Mon) Conference Room V

9:30–11:30

23 Toshikazu Kuniya (Kobe Univ.), Jinliang Wang (Heilongjiang Univ.), Ran Zhang (Harbin Inst. of Tech.) Mathematical analysis of an HIV model with infection-age-structure and nonlinear incidence ····· 15

24 Tetsuya Ishiwata (Shibaura Inst. of Tech.), Emiko Ishiwata (Tokyo Univ. of Sci.), Yukihiko Nakata (Shimane Univ.), Katsuhiro Miki Delay-induced blow-up in a limit-cycle osciillation model ····· 15

25 Kaname Matsue (Kyushu Univ. / Kyushu Univ.) — Quasi-Poincaré compactifications and blow-up solutions ····· 15

26 Kaname Matsue (Kyushu Univ. / Kyushu Univ.) — Compactifications, blow-up solutions and singular shock waves ····· 15

27 Takuya Tsuchiya (Waseda Univ.), Gen Yoneda (Waseda Univ.) — Constructing of constraint preserving scheme for Einstein equations ·· 15

28 Ryosuke Urakawa (Waseda Univ.), Takuya Tsuchiya (Waseda Univ.), Gen Yoneda (Waseda Univ.) — Analyzing constraint propagation of Einstein equation on non-flat background ····· 15

29 Hideki Murakawa (Kyushu Univ.) — A linear method for nonlinear diffusion problems ····· 15

14:15–16:20

30 Akane Kawaharada (Kyoto Univ. of Edu.), Tomoyuki Miyaji (Meiji Univ.), Naoto Nakano (JST PRESTO / Hokkaido Univ.) — Empirical CA construction method for the viscous Burgers equation and its characteristics ····· 15

31 Yuuki Shimizu (Kyoto Univ.), Takashi Sakajo (Kyoto Univ.) — Vortex dynamics on a toroidal surface ····· 15

32 Takeshi Gotoda (Kyoto Univ.), Robert Krasny (Univ. of Michigan) — Numerical simulations of pattern formation in vortex sheet model ···· 15

33 Tomoyuki Miyaji (Meiji Univ.), Toshiyuki Ogawa (Meiji Univ.), Ayuki Sekisaka (Meiji Univ.) — Torus bifurcation to a rippling rectangular wave ····· 15

34 Ayuki Sekisaka (Meiji Univ.) — Accumulation of eigenvalues for periodic boundary conditions ····· 15

35 Sungrim Seirin Lee (Hiroshima Univ.) — Pattern formation on asymmetric cell division and mathematical problems ····· 15

36 Syunsuke Kobayashi (Meiji Univ.), Takashi Sakamoto (Meiji Univ.) — Oscillatory hexagonal pattern in a 2-dimensional integro-differential reaction-diffusion system ····· 15

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

Shigetoshi Yazaki (Meiji Univ.) — How to track the moving boundary arising in interfacial phenomena

---

Topology

March 24th (Fri) Conference Room IV

10:00–12:00

1 Yusuke Mizota (Kyushu Sangyo Univ.) — Remarks on C^∞-liftable vector fields ····· 15

2 Takashi Sano (Hokkai-Gakuen Univ.)
Mahito Kobayashi (Akita Univ.)
Minoru Yamamoto (Hirosaki Univ.)
Panorama view for a polygon 15

3 Yutaro Kabata (Hokkaido Univ.)
Martín Barajas (ICMC-USP)
Projection of crosscap 15

4 Shunsuke Ichiki (Yokohama Nat. Univ.)
Composing generic linearly perturbed mappings and immersions/injections 15

5 Huhe Han (Yokohama Nat. Univ.)
Takashi Nishimura (Yokohama Nat. Univ.)
The Wulff construction for convex integrands 15

6 Takahiro Yamamoto (Kyushu Sangyo Univ.)
Osamu Saeki (Kyushu Univ.)
Singular fibers of stable maps on manifold pairs and its applications 15

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

Mitsunobu Tsutaya (Kyushu Univ.)
Applications of Stasheff's A_∞-theory to Lie groups

15:30–17:00

7 Jin-ho Lee (Samsung Fire / Marine Insurance)
Toshiyuki Miyauchi (Fukuoka Univ.)
Juno Mukai (Shinshu Univ.*)
Mariko Ohara (Shinshu Univ.)
The generators on 23-th, 24-th and 25-th homotopy groups of the n-th rotation group 15

8 Hisao Kato (Univ. of Tsukuba)
Topological entropy and indecomposability of continua 15

9 Atsuhide Mori (Osaka Dental Univ.)
Topology of information geometry 15

10 Shun Wakatsuki (Univ. of Tokyo)
On the semi-purity of Sullivan algebras 15

11 Shin Kiriki (Tokai Univ.)
Teruhiko Soma (Tokyo Metro. Univ.)
Takens' last problem and existence of non-trivial wandering domains 15

March 25th (Sat) Conference Room IV

10:00–11:50

12 Erika Kuno (Tokyo Tech)
Abelian subgroups of the mapping class groups for non-orientable surfaces 10

13 Erika Kuno (Tokyo Tech)
Genki Omori (Tokyo Tech)
On the distortion of the Torelli group in the mapping class group with boundary components 10

14 Genki Omori (Tokyo Tech)
Ryoma Kobayashi (Ishikawa Nat. Coll. of Tech.)
A simple infinite presentation for the mapping class group of a non-orientable surface with boundary 15

15 Genki Omori (Tokyo Tech)
A small generating set for the twist subgroup of the mapping class group of a non-orientable surface by Dehn twists 15

16 Shunsuke Tsuji (Univ. of Tokyo)
A Johnson homomorphism on a compact connected non-orientable surface with non-empty boundary 10

17 Shunsuke Tsuji (Univ. of Tokyo)
The mapping class group and the Kauffman bracket skein algebra 10

18 Shunsuke Tsuji (Univ. of Tokyo) — Construction of an invariant for integral homology 3-spheres via completed Kauffman bracket skein algebras ····· 10

13:15–14:45

19 Mari Hataoka (Japan Women's Univ.) — A presentation of a symmetric handlebody group ····· 15

20 Teruaki Kitano (Soka Univ.), Anh T. Tran (Univ. of Texas at Dallas) — On the polynomial defined by $SL(2;\mathbb{C})$-Reidemeister torsion for Brieskorn homology 3-spheres ····· 10

21 Masakazu Teragaito (Hiroshima Univ.), Kimihiko Motegi (Nihon Univ.) — Generalized torsion elements and bi-orderability of 3-manifold groups ····· 10

22 Tatsuro Shimizu (Kyoto Univ.) — On the SU(2) Chern–Simons perturbation theory ····· 10

23 Tomohiro Asano (Univ. of Tokyo) — The transverse element in the symplectic Khovanov homology ····· 15

March 26th (Sun) Conference Room IV

10:00–12:00

24 Tomo Murao (Univ. of Tsukuba), Yusuke Iijima (Univ. of Tsukuba) — The complete connected component decomposition of quandles ····· 10

25 Atsushi Ishii (Univ. of Tsukuba), Masahide Iwakiri (Saga Univ.), Seiichi Kamada (Osaka City Univ.), Jieon Kim (Osaka City Univ.), Shosaku Matsuzaki (Waseda Univ.), Kanako Oshiro (Sophia Univ.) — The algebraic structure of a partially multiplicative biquandle ····· 10

26 Yusuke Takimura (Gakushuin Boys' Junior High School) — A pre-order of chord diagrams on knot projections ····· 15

27 Noboru Ito (Univ. of Tokyo) — Spaces of chord diagrams on spherical curves II ····· 15

28 Takuji Nakamura (Osaka Electro-Comm. Univ.), Masahico Saito (Univ. of South Florida), Shin Satoh (Kobe Univ.), Yasutaka Nakanishi (Kobe Univ.) — The palette numbers of 2-bridge knots ····· 10

29 Kodai Wada (Waseda Univ.) — Link invariants of Milnor type ····· 10

30 Makoto Ozawa (Komazawa Univ.) — Unknotting submanifolds of the 3-sphere by twistings ····· 10

31 Hajime Fujita (Japan Women's Univ.), Rika Akiyama (Japan Women's Univ.), Yukie Inaba (Japan Women's Univ.), Satomi Seita (Japan Women's Univ.), Mari Hataoka (Japan Women's Univ.) — The maximum genus of the generalized jenga game ····· 15

14:15–15:45

32 Akiko Shima (Tokai Univ.), Teruo Nagase (Tokai Univ.*) — Regions without crossings for minimal charts ····· 15

33 Kouki Sato (Tokyo Tech) — A full-twist formula for the ν^+-invariant ····· 15

34 Kouki Sato (Tokyo Tech) CP^2-sliceness and Floer homologically thin knots 15

35 Motoo Tange (Univ. of Tsukuba)
Tetsuya Abe (Osaka City Univ.) Slice-ribbon conjecture and handle slide 15

36 Syunji Moriya (Osaka Pref. Univ.)
Keiichi Sakai (Shinshu Univ.) The space of short ropes and the classifying space of the space of long knots 15

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

Yasuyuki Miyazawa (Yamaguchi Univ.) Links with trivial Q-polynomial

---

Infinite Analysis

March 26th (Sun) Conference Room III

10:30–11:30

1 Akishi Kato (Univ. of Tokyo)
Yuma Mizuno (Tokyo Tech)
Yuji Terashima (Tokyo Tech) Quiver mutation sequences and q-binomial identities 15

2 Ryosuke Kodera (Kyoto Univ.) Higher level Fock spaces and affine Yangian 15

3 Katsuyuki Naoi
(Tokyo Univ. of Agri. and Tech.) Noncommutativity between the operations of taking tensor products and classical limits of $U_q(\mathbf{L}\mathfrak{g})$-modules 15

4 Yoshihiro Takeyama
(Univ. of Tsukuba) On the eigenfunctions for the multi-species q-Boson system 15

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

Ivan Chi Ho Ip (Kyoto Univ.) Positive representation and cluster realization of quantum groups

15:30–16:30 Talk Invited by Infinite Analysis Special Session

Akishi Kato (Univ. of Tokyo) Quiver mutation loops and partition q-series

March 27th (Mon) Conference Room III

10:15–12:00

5 Hiroshi Kawakami
(Aoyama Gakuin Univ.) The complete degeneration scheme of the four-dimensional Painlevé-type equations 15

6 Hidehito Nagao (Akashi Coll. of Tech.)
Yasuhiko Yamada (Kobe Univ.) On q-Garnier systems 15

7 Hidehito Nagao (Akashi Coll. of Tech.)
Yasuhiko Yamada (Kobe Univ.) Reductions from q-Garnier systems to q-Painlevé systems 15

8 Genki Shibukawa (Osaka Univ.) A generalization of multivariate Meixner, Charlier and Krawtchouk polynomials 15

Information for Speakers

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

The talks with ♭ marks denote presentations on whiteboard or blackboard. The speakers with ⋆ marks are professors emeriti. If you find anything wrong in the program, do not hesitate to inform the Chair of Organizing Committee by sending e-mail to the address `program17mar@mathsoc.jp`.

Each conference room is equipped with a whiteboard and a projector with VGA interface for PC presentation. There is not a document camera in the conference room. You are asked to use your own PC and necessary accessory (for example, HDMI–VGA adapter) for a PC presentation. The time for connecting your PC to the projector is included in the assigned duration of your talk. You are recommended to check beforehand if your PC can be connected to the projector in the conference room. We strongly advise you to prepare an alternative method to present your talk such as a copy of the PDF file of your sheets on a USB flash drive.

Information for Participants

Smoking is prohibited on campus and there is no parking area for visitors.

There are three restaurants "Student Refectory", "Lever son Verre", and "Student Cafeteria" on campus. However their capacity is not so large, especially on Saturday and Sunday. Participants are recommended to take lunch with them, which is available in the shopping district near campus.

Official Party

Date: March 25th (Sat) 18:00–20:00
Venue: Lever son Verre "Minami-Osawa"

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

Directions

2017 MSJ ANNUAL MEETING

Dates : March 24th (Fri)–27th (Mon), 2017

Venue : Tokyo Metropolitan University
1-1 Minami-Osawa, Hachioji-shi, Tokyo 192-0397

Contact to : Tokyo Metropolitan University
Department of Mathematics and Information Sciences
1-1 Minami-Osawa, Hachioji-shi, Tokyo 192-0397
tmu17mar@mathsoc.jp
Phone +81 (0) 90 1791 3483 (During session)

Web Site : http://mathsoc.jp/en/meeting/tmu17mar/

Conference Rooms

	Place	Research Sections
Conference Room I	Small Hall, Auditorium	Functional Equations
Conference Room II	Bldg. 11 2F Rm. 204	Algebra, Featured Invited Talk
Conference Room III	Bldg. 11 1F Rm. 110	Foundation of Mathematics and History of Mathematics, Infinite Analysis, Featured Invited Talks
Conference Room IV	Bldg. 12 1F Rm. 101	Topology
Conference Room V	Bldg. 12 1F Rm. 102	Applied Mathematics, Featured Invited Talks
Conference Room VI	Bldg. 12 1F Rm. 103	Statistics and Probability
Conference Room VII	Bldg. 12 1F Rm. 104	Complex Analysis, Real Analysis, Featured Invited Talk
Conference Room VIII	Bldg. 12 2F Rm. 201	Geometry, Featured Invited Talk
Conference Room IX	Bldg. 12 2F Rm. 202	Functional Analysis
Plenary Talks	Large Hall, Auditorium	
Open Lectures for Citizens	Large Hall, Auditorium	

Other Rooms

Membership Fee & Extended Abstracts	Bldg. 11, 1F Rm. 103
Discussion Rooms	Bldg. 12, 2F Rm. 203
Book Display and Sale	Bldg. 11, 1F Rm. 105, 106, 108
Executive Committee, MSJ President	Bldg. 11, 1F Rm. 102
Official Party	Lever son Verre “Minami-Osawa”