Final: 2017/8/7

2017 The Mathematical Society of Japan

AUTUMN MEETING

Dates: September 11th (Mon)–14th (Thu), 2017

Venue: Yamagata University, Kojirakawa Campus
1-4-12 Kojirakawa-machi,
Yamagata-shi 990-8560 Japan

Contact to: Faculty of Science, Yamagata University
1-4-12 Kojirakawa-machi,
Yamagata-shi 990-8560 Japan
E-mail yamagata17sept@mathsoc.jp
During session: Phone +81 (0) 90 1791 3483
The Mathematical Society of Japan
Phone +81 (0) 3 3835 3483

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11th (Mon)	Statistics and Probability 9:15–12:00 14:15–15:00	Geometry 9:30–11:40 14:20–15:45	Topology 10:00–12:00 15:30–17:30	Applied Mathematics 10:00–12:00 14:15–15:45	Infinite Analysis 9:50–12:00 14:20–16:30	Functional Analysis 14:15–16:45	Complex Analysis 9:00–12:00 14:15–15:00	Functional Equations 9:00–12:00 14:15–16:15	Algebra 9:15–11:45 15:30–16:50
	Featured Invited Talks 13:00–14:00								
	Invited Talks 15:15–16:15 16:30–17:30	Invited Talk 16:00–17:00	Invited Talk 14:15–15:15	Invited Talk 16:00–17:00	Invited Talk 16:40–17:40	Invited Talk 17:00–18:00	Invited Talks 15:20–16:20 16:30–17:30	Invited Talk 16:30–17:30	Invited Talk 14:15–15:15
12th (Tue)	Statistics and Probability 9:20–11:30 13:15–14:15		Geometry &Topology 9:30–12:00 Invited Talks 10:30–11:30 13:00–14:00	Applied Mathematics 9:30–12:00	Infinite Analysis 9:50–12:00 Invited Talk 13:00–14:00	Functional Analysis 9:45–12:00 Invited Talk 13:00–14:00	Complex Analysis 9:00–12:00 Invited Talk 13:00–14:00	Functional Equations 9:15–12:00 Invited Talk 13:00–14:00	Algebra 9:15–12:00 Invited Talk 13:00–14:00
	MSJ Prizes Presentation (Yamagin Hall) ····· (14:45–15:20) Plenary Talks (Yamagin Hall) Autumn Prize Winner ····· (15:30–16:30) Yoshio Tsutsumi (Kyoto Univ.) ····· (16:40–17:40) Official Party (Yamagata Grand Hotel) ····· (18:00–20:00)								
13th (Wed)	Statistics and Probability 9:40–12:10	Geometry 10:00–11:40 14:20–15:45	Topology 10:00–12:00 15:30–17:30	Applied Mathematics 9:30–11:40 14:15–16:15	Found. of Math. and History of Math. 9:45–11:20 14:15–16:15	Functional Analysis 9:00–12:00 14:15–15:30	Real Analysis 9:30–12:00 14:15–15:45	Functional Equations 9:15–12:00 14:15–16:15	Algebra 9:15–11:15 14:15–16:45
	Featured Invited Talks 13:00–14:00								
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14th (Thu)			Topology 10:00–11:30	Applied Mathematics 9:30–10:30	Found. of Math. and History of Math. 9:30–11:20 14:15–16:00		Real Analysis 9:30–12:00 14:15–16:00	Functional Equations 9:00–12:00 14:15–16:15	Algebra 9:15–12:00 14:15–16:15
	Featured Invited Talks 13:00–14:00								
				Invited Talk 10:45–11:45	Invited Talk 16:15–17:15		Invited Talk 16:15–17:15	Invited Talk 16:30–17:30	Invited Talk 16:30–17:30

Plenary Talks

September 12th (Tue) Large Hall, Yamagin Hall (Yamagata Prefectural Hall)

Autumn Prize Winner ..... (15:30–16:30)

Yoshio Tsutsumi (Kyoto Univ.) Well-posedness and smoothing effect for nonlinear dispersive equations ..... (16:40–17:40)

Featured Invited Talks

September 11th (Mon)

Conference Room I

Toshio Mikami (Tsuda Coll.) Stochastic optimal transportation problem —a generalization of probabilistic problem in E. Schrödinger's mechanics— ..... (13:00–14:00)

Conference Room VII

Kyoji Saito (Univ. of Tokyo) Special global functions in several complex variables ..... (13:00–14:00)

Conference Room VIII

Guest Talk from Korean Mathematical Society

Hi Jun Choe (Yonsei Univ.) Regularity condition to incompressible Navier–Stokes equations ..... (13:00–14:00)

September 13th (Wed)

Conference Room II

Hiroshi Ohta (Nagoya Univ.) Wander in Fukaya category ..... (13:00–14:00)

Conference Room VI

Masaki Izumi (Kyoto Univ.) A generalization of the Dixmier–Douady theory (twisted K-theory) after Dadarlat–Pennig ..... (13:00–14:00)

September 14th (Thu)

Conference Room VIII

Eiji Yanagida (Tokyo Tech) Dynamics of nonlinear diffusive systems —Asymptotic stability and the butterfly effect— ..... (13:00–14:00)

Conference Room IX

Kentaro Nakamura (Saga Univ.) p-adic local Langlands correspondence and Iwasawa main conjecture ..... (13:00–14:00)

Talks Invited by Research Sections and Special Session

September 11th (Mon)

Algebra (Conference Room IX)

Hajime Kaneko (Univ. of Tsukuba) — Recent developments in uniform distribution theory: digital expansion of integers and real numbers ····· (14:15–15:15)

Geometry (Conference Room II)

Yasufumi Nitta (Tokyo Tech) — On the existence of canonical Kähler metrics and stability ····· (16:00–17:00)

Complex Analysis (Conference Room VII)

Risto Korhonen (Univ. of Eastern Finland) — Delay differential Painlevé equations and difference Nevanlinna theory ····· (15:20–16:20)

Masaharu Nishio (Osaka City Univ.) — Potential theory and function spaces for parabolic equations ····· (16:30–17:30)

Functional Equations (Conference Room VIII)

Oleg Lisovyi (Univ. de Tours) — Painlevé functions, Fredholm determinants and combinatorics ····· (16:30–17:30)

Functional Analysis (Conference Room VI)

Masaki Kawamoto (Tokyo Univ. of Sci.) — Scattering theory for periodically pulsed magnetic field ··· (17:00–18:00)

Statistics and Probability (Conference Room I)

Kazuki Okamura (Kyoto Univ.) — Several properties for random walks on graphs ····· (15:15–16:15)

Akira Sakai (Hokkaido Univ.) — Recent progress in researches on phase transitions and critical behavior for Ising ferromagnets ····· (16:30–17:30)

Applied Mathematics (Conference Room IV)

Shuya Chiba (Kumamoto Univ.) — 2-factors with a specified number of components and degree sum conditions ····· (16:00–17:00)

Topology (Conference Room III)

Nariya Kawazumi (Univ. of Tokyo) — Mapping class groups, the Goldman–Turaev Lie bialgebra and the Kashiwara–Vergne problem ····· (14:15–15:15)

Infinite Analysis (Conference Room V)

Shuhei Kamioka (Kyoto Univ.) — Partition functions for reverse plane partitions derived from the two-dimensional Toda molecule ····· (16:40–17:40)

September 12th (Tue)

Algebra (Conference Room IX)

Satoshi Murai (Osaka Univ.) — Algebraic and combinatorial duality of triangulated manifolds ····· (13:00–14:00)

Geometry and Topology (Conference Room III)

Award Lecture for the 2017 MSJ Geometry Prize

Kobayashi Osamu ♭ Weyl's gauge theory, the Schwarzian derivative and a sphere theorem ····· (10:30–11:30)

Award Lecture for the 2017 MSJ Geometry Prize

Makoto Sakuma (Hiroshima Univ.) Fiber surfaces vs Heegaard surfaces of 3-manifolds ····· (13:00–14:00)

Complex Analysis (Conference Room VII)

Tatsuhiro Honda (Hiroshima Inst. of Tech.) Distortion theorems for holomorphic mappings on bounded symmetric domains ····· (13:00–14:00)

Functional Equations (Conference Room VIII)

Shinji Adachi (Shizuoka Univ.) On the uniqueness and the non-degeneracy of positive solutions for a class of semilinear elliptic equations in $\mathbb{R}^N$ and its applications ····· (13:00–14:00)

Functional Analysis (Conference Room VI)

Toshihisa Kubo (Ryukoku Univ.) Differential symmetry breaking operators of $O(n,1)$ for differential forms ····· (13:00–14:00)

Infinite Analysis (Conference Room V)

Hidetoshi Awata (Nagoya Univ.) The representation theory of the Ding–Iohara–Miki algebra ····· (13:00–14:00)

September 13th (Wed)

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

Kota Takeuchi (Univ. of Tsukuba) Recent interaction between model theory and finite combinatorics ····· (16:30–17:30)

Algebra (Conference Room IX)

Ryosuke Kodera (Kyoto Univ.) Quantized Coulomb branches of Jordan quiver gauge theories and cyclotomic rational Cherednik algebras ····· (17:00–18:00)

Geometry (Conference Room II)

Kota Hattori (Keio Univ.) ♭ The nonuniqueness of the tangent cones at infinity of Ricci-flat manifolds ····· (16:00–17:00)

Functional Equations (Conference Room VIII)

Hiromichi Itou (Tokyo Univ. of Sci.) On analysis for partial differential equations in a cracked domain ····· (16:30–17:30)

Real Analysis (Conference Room VII)

Akihiro Nakamura (Tokai Univ.) Nonharmonic Fourier series and Riesz bases ····· (16:00–17:00)

Functional Analysis (Conference Room VI)

Yusuke Isono (Kyoto Univ.) Deformation/rigidity theory and type III von Neumann algebras ····· (15:45–16:45)

Statistics and Probability (Conference Room I)

Tomonari Sei (Univ. of Tokyo) — A scaling problem of multi-dimensional probability distributions · · · · · (14:15–15:15)

Fumiya Akashi (Waseda Univ.) — Robust statistical inference for non-standard time series models based on the empirical likelihood and normalization methods · · · · · (15:30–16:30)

Applied Mathematics (Conference Room IV)

Kaname Matsue (Kyushu Univ./Kyushu Univ.) — Saddles create connections: Rigorous numerics and dynamical systems · · · · · (16:30–17:30)

Topology (Conference Room III)

Takahito Naito (Univ. of Tokyo) — Sullivan's coproduct on the reduced loop homology · · · · · (14:15–15:15)

September 14th (Thu)

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

Yosuke Sato (Tokyo Univ. of Sci.) — On quantifier elimination algorithm and current situation of its computation · · · · · (16:15–17:15)

Algebra (Conference Room IX)

Shigeki Matsutani (Sasebo Nat. Coll. of Tech.) — Elastica of Euler–Bernoulli and its generalization: from sprout of elliptic functions to reconstruction of Abelian function theory · · · · · (16:30–17:30)

Functional Equations (Conference Room VIII)

Ryo Takada (Kyushu Univ.) — Dispersive estimates for rotating fluids and stably stratified fluids · · · · · (16:30–17:30)

Real Analysis (Conference Room VII)

Yutaka Tsuzuki (Hiroshima Shudo Univ.) — Global existence of solutions to Vlasov–Poisson equations with external magnetic field in a half space · · · · · (16:15–17:15)

Applied Mathematics (Conference Room IV)

Naoto Nakano (JST PRESTO/Hokkaido Univ.) — Revisiting delay-embedding in terms of Hilbert–Schmidt integral operator theory: Towards dynamical reconstruction for empirical modelling · · · · · (10:45–11:45)

Open Lectures for Citizens

Date: September 10th (Sun) 14:00–16:30

Venue: Hall "Applause", 3F, Yamagata Terrsa

Sponsored by: Mathematical Society of Japan

Co-sponsored by: Yamagata University / Faculty of Science, Yamagata University / Board of Education, Yamagata Prefectural Government

Program: Opening Speech ..... (14:00–14:10)
Hideo Kozono (President of MSJ / Waseda Univ.)

Lecture 1: "Aida Yasuaki and mathematics of the Edo period" ..... (14:10–15:10)
Kenji Ueno (Yokkaichi Univ. / Kyoto Univ.)

Lecture 2: "Origami-based mathematical engineering for foldable products"
..... (15:30–16:30)
Chie Nara (Meiji Institute for Advanced Study of Mathematical Sciences)

Web Page: `http://mathsoc.jp/en/meeting/yamagata17sept/`

Foundation of Mathematics and History of Mathematics

September 13th (Wed) Conference Room V

9:45–11:20

1 Shigeru Masuda (Kyoto Univ.) The solubilities in the mathematical physics by poisson ····· 15

2 Shigeru Masuda (Kyoto Univ.) The hydrostatics and the hydrodynamics in a study of mechanics by poisson ····· 15

3 Makoto Tamura (Osaka Sangyo Univ.) On the term "Suan," the amount of calculations, in the chapter "Fangcheng" of "Nine Chapters" ····· 15

4 Katsushi Waki (Yamagata Univ.)
Takuma Tsuchihashi (Meiji Univ.) Towards an automatic tagging system for image databases of Japanese mathematics (wasan) ····· 15

5 Ken Saito (Osaka Pref. Univ.) Editing diagrams of Book XII of Euclid's *Elements* ····· 15

11:30–12:00 Mathematics History Team Meeting

14:15–16:15

6 Teruyuki Yorioka (Shizuoka Univ.) A combinatorial relationship between Aronszajn trees and other Ramsey theoretic structures ····· 15

7 Teruyuki Yorioka (Shizuoka Univ.) Galvin's non-productive ccc posets and Suslin tree ····· 15

8 Hiroshi Sakai (Kobe Univ.) Indescribable cardinals and reflection of indescribable sets ····· 10

9 Makoto Kikuchi (Kobe Univ.)
Joel David Hamkins (CUNY) On the inclusion relations defined on countable models of ZFC ····· 15

10 Hirotaka Kikyo (Kobe Univ.) On class $\mathbf{K}_f$ ····· 15

11 Akito Tsuboi (Univ. of Tsukuba) Graphs and automorphism groups ····· 10

12 Koichiro Ikeda (Hosei Univ.) A remark on Ehrenfeucht theories ····· 15

16:30–17:30 Talk Invited by Section on Foundation and History of Mathematics

Kota Takeuchi (Univ. of Tsukuba) Recent interaction between model theory and finite combinatorics

September 14th (Thu) Conference Room V

9:30–11:20

13 Takashi Oyabu ♭ ZF;: S ========> $\mathbb{R}$, and other 5 talks ····· 5

14 Saburou Saitoh * History, logic, results and impacts of the division by zero 1/0=0 ····· 15
(Gunma Univ.*/Inst. of Reproducing Kernels)

15 Saburou Saitoh ♭ Relations of 0 and ∞ ····· 15
(Gunma Univ.*/Inst. of Reproducing Kernels)
Okumura Hiroshi (Yamato Univ.)
Tsutomu Matsuura (Gunma Univ.)

16 Takahiro Seki (Niigata Univ.) A semilattice semantics in relevant logics ····· 15

17 Kyohei Yokomizo (Nihon Univ.) Reducts of a hypersequent calculus characterized by the class of all totally ordered Kripke frames · · · · · 15

18 Kenetsu Fujita (Gunma Univ.) A formal system of reduction paths · · · · · 15

19 Ryo Kashima (Tokyo Tech) Kazuki Nakamura (Tokyo Tech) On first order predicate logic with second order function symbols · · · · 15

11:30–12:00 Research Section Assembly

14:15–16:00

20 Taishi Kurahashi (Kisarazu Nat. Coll. of Tech.) On extensions and generalizations of the first incompleteness theorem · · · · · 15

21 Taishi Kurahashi (Kisarazu Nat. Coll. of Tech.) Arithmetical soundness and completeness for Sacchetti's logics · · · · · 15

22 Satoru Kuroda (Gunma Pref. Women's Univ.) Bounded arithmetic and forcing · · · · · 15

23 Kazuyuki Tanaka (Tohoku Univ.) Wenjuan Li (Tohoku Univ.) Infinite games and pushdown ω-languages · · · · · 15

24 Hayato Takahashi (Random Data Lab.) Bayesian definition of random sequences with respect to conditional probabilities · · · · · 15

25 Kohtaro Tadaki (Chubu Univ.) An application of the principle of typicality to quantum information processing: A refinement of the BB84 QKD protocol · · · · · 15

16:15–17:15 Talk Invited by Section on Foundation and History of Mathematics

Yosuke Sato (Tokyo Univ. of Sci.) On quantifier elimination algorithm and current situation of its computation

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Algebra

September 11th (Mon) Conference Room IX

9:15–11:45

1 Hirotsugu Wayama (Tohoku Univ.) Yasuo Ohno (Tohoku Univ.) Interpolation of Arakawa–Kaneko-type multiple zeta functions · · · · · 10

2 Hirotsugu Wayama (Tohoku Univ.) On a family of relations among t-MZVs · · · · · 10

3 Ryota Umezawa (Nagoya Univ.) On an analog of Arakawa–Kaneko zeta function and a certain relation of related multiple zeta values · · · · · 10

4 Kenta Endo (Nagoya Univ.) Yuta Suzuki (Nagoya Univ.) Real zeros of Hurwitz zeta-functions in the interval $(0, 1)$ · · · · · 10

5 Satoshi Kawamura (Tohoku Univ.) Analytic properties of higher Mahler measures and zeta Mahler measures · · · · · 10

6 Yohei Tachiya (Hirosaki Univ.) Algebraic independence results for the values of the theta function · · · 10

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

Hajime Kaneko (Univ. of Tsukuba) Recent developments in uniform distribution theory: digital expansion of integers and real numbers

15:30–16:50

September 12th (Tue) Conference Room IX

9:15–12:00

25 Yuta Kambe (Saitama Univ.) Construction of the moduli space of reduced Gröbner bases ····· 15

26 Ken-ichi Yoshida (Nihon Univ.)
Kei-ichi Watanabe (Nihon Univ.)
Strong Rees property for powers of the maximal ideal ····· 15

27 Tsutomu Nakamura (Okayama Univ.)
Yuji Yoshino (Okayama Univ.)
Localization and colocalization in derived categories of commutative Noetherian rings ····· 15

28 Hiroki Matsui (Nagoya Univ.) Some topological structures of the Balmer spectra of right bounded derived categories of commutative noetherian rings ····· 15

29 Haruhisa Nakajima * (J. F. Oberlin Univ.) Liftings of pseudo-reflection groups on invariant subrings of Krull domains of algebraic subtori under actions of reductive groups ····· 10

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

Satoshi Murai (Osaka Univ.) Algebraic and combinatorial duality of triangulated manifolds

September 13th (Wed) Conference Room IX

9:15–11:15

30 Ayako Itaba (Tokyo Univ. of Sci.) Finiteness condition (Fg) for a self-injective special biserial algebra obtained by a circular quiver with double arrows ····· 10

31 Mayu Tsukamoto (Osaka City Univ.) Strongly quasi-hereditary algebras and rejective subcategories ····· 10

32 Michio Yoshiwaki (Shizuoka Univ./Osaka City Univ.)
Hideto Asashiba (Shizuoka Univ.)
Mayumi Kimura
Ken Nakashima (Shizuoka Univ.)
On isomorphisms of generalized multifold extensions of algebras without nonzero oriented cycles ····· 10

33 Yasuaki Ogawa (Nagoya Univ.) Auslander–Reiten duality and recollements ····· 10

34 Tomohiro Itagaki (Tokyo Univ. of Sci.) Symmetric Hochschild extension algebras and normalized 2-cocycles ·· 10

35 Hideyuki Koie (Tokyo Univ. of Sci.)
Tomohiro Itagaki (Tokyo Univ. of Sci.)
Katsunori Sanada (Tokyo Univ. of Sci.)
The ordinary quivers of Hochschild extension algebras for self-injective Nakayama algebras ····· 10

36 Tsunekazu Nishinaka (Univ. of Hyogo) On primitivity of group algebras ····· 10

37 Shigeto Kawata (Nagoya City Univ.) On vertices of indecomposable modules over group rings ····· 10

38 Takao Hayami (Hokkai-Gakuen Univ.) * Hochschild cohomology ring of the integral group ring of a split metacyclic group ····· 10

39 Fuminori Tasaka ♭ (Nat. Inst. of Tech., Tsuruoka Coll.) The number of simple modules in a block with Klein four hyperfocal subgroup ····· 10

11:30–12:00 Research Section Assembly

14:15–16:45

40 Takao Komatsu (Wuhan Univ.) Incomplete Fubini numbers associated with determinants ····· 10

41 Mitsushi Fujimoto (Fukuoka Univ. of Edu.) Loop generators and factorization problem in $mn-1$ puzzle groups ····· 10

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

Ryosuke Kodera (Kyoto Univ.) — Quantized Coulomb branches of Jordan quiver gauge theories and cyclotomic rational Cherednik algebras

September 14th (Thu) Conference Room IX

9:15–12:00

14:15–16:15

60 Makoto Enokizono (Osaka Univ.) Slope equality for plane curve fibrations ····· 15

61 Makoto Enokizono (Osaka Univ.) Durfee-type inequality for hypersurface surface singularities ····· 10

62 Hirokazu Nasu (Tokai Univ.) Obstructions to deforming curves on a prime Fano threefold ····· 15

63 Taku Suzuki (Waseda Univ.) Higher order minimal families of rational curves on Fano manifolds ····· 15

64 Katsuhiko Okumura (Waseda Univ.) The Classification of SNC log symplectic structures on blow-up of projective spaces ····· 15

65 Yohosuke Matsuzawa (Univ. of Tokyo) On the dynamical and arithmetic degrees of self-maps of algebraic varieties ····· 15

66 Nobuhiro Higuchi (Yokohama Nat. Univ.) Classification of boundary components of central streams in the two slopes case ····· 15

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

Shigeki Matsutani (Sasebo Nat. Coll. of Tech.) Elastica of Euler–Bernoulli and its generalization: from sprout of elliptic functions to reconstruction of Abelian function theory

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Geometry

September 11th (Mon) Conference Room II

9:30–11:40

1 Hokuto Konno (Univ. of Tokyo) Positive scalar curvature and Seiberg–Witten invariants of tuples of diffeomorphisms ····· 15

2 Masayuki Aino (Nagoya Univ.)♭ Riemannian invariants that characterize rotational symmetries of the standard sphere ····· 15

3 Masahiro Morimoto (Osaka City Univ.) The heat operator of a transversally elliptic operator ····· 15

4 Tatsuki Seto (Nagoya Univ.) A cyclic cocycle and relative index theorems on partitioned manifolds ····· 15

5 Shinya Akagawa (Osaka Univ.)♭ Vanishing theorems of L^2-cohomology groups on regular convex cones with the Cheng–Yau metrics ····· 15

6 Masato Arai (Yamagata Univ.)
Kurando Baba (Tokyo Univ. of Sci.) Special Lagrangian submanifolds and cohomogeneity one actions on the complex projective space ····· 15

7 Kotaro Kawai (Gakushuin Univ.)
Hông Vân Lê (CAS)
Lorenz Schwachhöfer (TU Dortmund) Frölicher–Nijenhuis cohomology on G_2- and Spin(7)-manifolds ····· 15

8 Masaya Kawamura (Nat. Inst. of Tech., Kochi Coll.) Parabolic flows on almost complex manifolds ····· 15

14:20–15:45

9 Hikaru Yamamoto (Tokyo Univ. of Sci.) Mirror correspondence between special Lagrangian submanifolds and deformed Hermitian Yang–Mills connections · · · · · 15

10 Satoshi Nakamura (Tohoku Univ.) Generalized Kähler Einstein metrics and uniform stability for toric Fano manifolds · · · · · 15

11 Ryosuke Nomura (Univ. of Tokyo) Miyaoka–Yau inequality for compact Kähler manifolds with semipositive canonical bundles · · · · · 15

12 Ryosuke Takahashi (Tohoku Univ.)
Shunsuke Saito (Tohoku Univ.) Stability of anti-canonically balanced metrics · · · · · 15

13 Ryosuke Takahashi (Tohoku Univ.) Smooth approximation of the modified conical Kähler–Ricci flow · · · · · 15

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

Yasufumi Nitta (Tokyo Tech) On the existence of canonical Kähler metrics and stability

September 12th (Tue) Conference Room Ⅲ

10:10–10:25 Presentation Ceremony for the 2017 MSJ Geometry Prize

10:30–11:30 Award Lecture for the 2017 MSJ Geometry Prize

Kobayashi Osamu ♭ Weyl's gauge theory, the Schwarzian derivative and a sphere theorem

13:00–14:00 Award Lecture for the 2017 MSJ Geometry Prize

Makoto Sakuma (Hiroshima Univ.) Fiber surfaces vs Heegaard surfaces of 3-manifolds

September 13th (Wed) Conference Room Ⅱ

10:00–11:40

14 Kohei Yamamoto (Tohoku Univ.) Cheeger constant and percolation process · · · · · 15

15 Kenzi Satô (Tamagawa Univ.) The existence and uniqueness of orthocenters of simplices of high-dimensional spheres · · · · · 15

16 Homare Tadano (Tokyo Univ. of Sci.) Some compactness theorems via m-Bakry–Émery and m-Modified Ricci curvatures with negative m · · · · · 15

17 Junichi Mukuno (Nagoya Univ.) On the fundamental group of semi-Riemannian manifolds with positive curvature operator · · · · · 15

18 Nobuhiro Innami (Niigata Univ.) Projective Randers change and cut locus · · · · · 15

19 Chen Tao (Tohoku Univ.) A convergence theory of discrete surface on graphs · · · · · 15

14:20–15:45

20 Kouhei Miura (Miyagi Univ.)
Gabor Toth (Rutgers Univ., Camden) On the moduli of isotropic and helical minimal immersions between spheres · · · · · 10

21 Yuichiro Sato (Tokyo Metro. Univ.) On the classification of ruled minimal surfaces in pseudo-Euclidean space · · · · · 10

22 Masahiro Ooguri (Chuo Univ.) * Three-dimensional locally homogeneous nondegenerate centroaffine hypersurfaces with nondiagonalizable Tchebychev operator · · · · · 10

23 Masashi Yasumoto (Osaka City Univ.) Discrete timelike minimal surfaces and discrete wave equations ····· 15

24 Kazuyuki Enomoto (Tokyo Univ. of Sci.), Jin-ichi Itoh (Kumamoto Univ.) Total mixed curvature of curves in Euclidean space ····· 15

25 Takashi Kurose (Kwansei Gakuin Univ.), Nozomu Matsuura (Fukuoka Univ.) Certain transformations from curves on a Minkowski plane and on a two-dimensional de Sitter space to equicentroaffine plane curves ····· 15

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

Kota Hattori (Keio Univ.)♭ The nonuniqueness of the tangent cones at infinity of Ricci-flat manifolds

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Complex Analysis

September 11th (Mon) Conference Room VII

9:00–12:00

1 Toshiyuki Sugawa (Tohoku Univ.), Li-Mei Wang (Univ. of Int. Business and Econ.) On geometric properties of hypergeometric functions ····· 10

2 Toshiyuki Sugawa (Tohoku Univ.) Characterizations of convexity of a domain in terms of the hyperbolic metric ····· 10

3 Masakazu Shiba (Hiroshima Univ.⋆), Hiroshi Yamaguchi (Shiga Univ.⋆) Conformal embeddings of an open Riemann surface into closed ones of the same genus —closings and hydrodynamic period matrices ····· 15

4 Hideki Miyachi (Osaka Univ.) Harmonic differentials for infinitesimal deformations of singular Euclidean structures ····· 15

5 Hideki Miyachi (Osaka Univ.) A formula of the Levi form of Teichmüller distance ····· 15

6 Yohei Komori (Waseda Univ.), Shota Kubo (Waseda Univ. Senior High School) On Schwarz automorphic functions ····· 15

7 Katsuhiko Matsuzaki (Waseda Univ.) Injectivity of the quotient Bers embedding of Teichmüller space ····· 15

8 Gou Nakamura (Aichi Inst. of Tech.), Noriaki Suzuki (Meijo Univ.) Polynomial solution to Dirichlet problems for the heat equation ····· 15

9 Hiroaki Aikawa (Hokkaido Univ.) Dichotomy of global capacity density ····· 15

10 Masaharu Nishio (Osaka City Univ.), Katsunori Shimomura (Ibaraki Univ.) Weighted polyharmonic and polyparabolic Bergman spaces on the upper half space ····· 15

11 Katsunori Shimomura (Ibaraki Univ.) Caloric morphism with Bateman space mapping for radial metrics ···· 15

14:15–15:00

12 Koh Katagata (Ichinoseki Nat. Coll. of Tech.) — Entire functions whose Julia sets include any finitely many copies of quadratic Julia sets ····· 15

13 Tomoki Kawahira (Tokyo Tech), Masashi Kisaka (Kyoto Univ.) — Almost conformal copies of the Julia sets in the Mandelbrot set ····· 15

14 Kohei Ueno (Daido Univ.) * — Böttcher coordinates for holomorphic skew products ····· 15

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

Risto Korhonen (Univ. of Eastern Finland) — Delay differential Painlevé equations and difference Nevanlinna theory

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

Masaharu Nishio (Osaka City Univ.) — Potential theory and function spaces for parabolic equations

September 12th (Tue) Conference Room VII

9:00–12:00

15 Shizuo Nakane (Tokyo Polytechnic Univ.) — On formal normal forms of holomorphic germs at super-saddle fixed points ····· 15

16 Shinichi Tajima (Univ. of Tsukuba), Mitsuo Kato (Univ. of Ryukyus), Katsusuke Nabeshima (Tokushima Univ.) — B-functions of semi-quasihomogeneous hypersurface singularities and integral dependence relations ····· 15

17 Katsusuke Nabeshima (Tokushima Univ.), Shinichi Tajima (Univ. of Tsukuba) — Algorithms for computing integral numbers in a ring of convergent power series —Gröbner bases vs Local cohomology— ····· 10

18 Shinichi Tajima (Univ. of Tsukuba), Katsusuke Nabeshima (Tokushima Univ.) — Computing Grothendieck local residues via transformation law ····· 15

19 Takashi Umeno (Kyushu Sangyo Univ.) — Toroidal groups defined by algebraic number fields ····· 15

20 Takayuki Koike (Kyoto Univ.) * — Complex $K3$ surfaces containing Levi-flat hypersurfaces ····· 10

21 Yusaku Tiba (Ochanomizu Univ.) — The extension of holomorphic functions on a non-pluriharmonic locus ····· 15

22 Hidetaka Hamada (Kyushu Sangyo Univ.) — Bounded support points for the Carathéodory families in several complex variables ····· 10

23 Hidetaka Hamada (Kyushu Sangyo Univ.) — Bounded support points for the families with parametric representation in several complex variables ····· 10

24 Hidetaka Hamada (Kyushu Sangyo Univ.) — The reachable families and the support points in several complex variables ····· 10

25 Satoru Shimizu (Tohoku Univ.) * — Tube domains with solvable groups of automorphisms ····· 15

26 Junjiro Noguchi (Univ. of Tokyo*) $^\flat$ — A remark on Oka's coherence without Weierstrass' preparation theorem and the Oka theory ····· 15

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

Tatsuhiro Honda (Hiroshima Inst. of Tech.) Distortion theorems for holomorphic mappings on bounded symmetric domains

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Functional Equations

September 11th (Mon) Conference Room VIII

9:00–12:00

14:15–16:15

15 Lorenzo Cavallina (Tohoku Univ.) — On the spherically symmetric solutions to the two-phase torsional rigidity optimization problem ····· 12

16 Kazuhiro Oeda (Waseda Univ.), Kousuke Kuto (Univ. of Electro-Comm.) — Coexistence steady states of a prey-predator model with population flux by attractive transition ····· 12

17 Tetsutaro Shibata (Hiroshima Univ.) — Oscillatory structures of bifurcation curves for semilinear eigenvalue problems ····· 12

18 Yasuhito Miyamoto (Univ. of Tokyo) — On the existence of infinitely many nonradial solutions of a semilinear elliptic equation ····· 9

19 Alessio Pomponio (Politecnico di Bari), Tatsuya Watanabe (Kyoto Sangyo Univ.) — Quasilinear elliptic equations of Born–Infeld type ····· 12

20 Kotaro Watanabe (Nat. Defense Acad. of Japan), Naoki Sioji (Yokohama Nat. Univ.) — Bifurcation and symmetry breaking for Brezis–Nirenberg problem on the thin annulus of the n-dimensional sphere ····· 9

21 Futoshi Takahashi (Osaka City Univ.) — Critical and subcritical fractional Trudinger–Moser type inequalities on $\mathbb{R}$ ····· 9

22 Futoshi Takahashi (Osaka City Univ.), Van Hoang Nguyen (Inst. de Math. de Toulouse) — On a weighted Trudinger–Moser type inequality on the whole space and related maximizing problem ····· 9

23 Ryuji Kajikiya (Saga Univ.) — Symmetric solutions of p-Laplace equations in hollow domains ····· 12

24 Shigeru Sakaguchi (Tohoku Univ.) * — Two-phase heat conductors with a stationary isothermic surface and their related elliptic overdetermined problems ····· 12

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

Oleg Lisovyi (Univ. de Tours) — Painlevé functions, Fredholm determinants and combinatorics

September 12th (Tue) Conference Room VIII

9:15–12:00

25 Shoya Kawakami (Saitama Univ.) — A discretization of the knot energies ····· 12

26 Katsunori Gunji (Saitama Univ.) — The Łojasiewicz inequalities for decomposed Möbius energies ····· 12

27 Simon Blatt (Paris Lodron Univ. Salzburg), Takeyuki Nagasawa (Saitama Univ.) — Alternative representation of the decomposed Möbius energies with the Möbius invariant densities ····· 9

28 Simon Blatt (Paris Lodron Univ. Salzburg), Takeyuki Nagasawa (Saitama Univ.) — A Möbius invariant discretization and decomposition of the Möbius energy ····· 9

29 Kouta Takano (Saitama Univ.) — A geometric representation of the generalized mean curvature vector using a limit of integral means ····· 9

30 Ryuichi Sato (Tohoku Univ.), Goro Akagi (Tohoku Univ.), Kazuhiro Ishige (Tohoku Univ.) — The Cauchy problem for the Finsler heat equation ····· 12

31 Yukihiro Seki (Kyushu Univ.) Type II blow-up mechanisms in a semilinear heat equation with critical Joseph–Lundgren exponent, Part II: neutral case ····· 12

32 Hiroko Yamamoto (Meiji Univ.), Hirokazu Ninomiya (Meiji Univ.) Reaction-diffuion approximation of a semilinear wave equation ····· 12

33 Masaharu Taniguchi (Okayama Univ.) The uniqueness and stability of pyramidal traveling fronts in the Allen–Cahn equations ····· 12

34 Kentarou Fujie (Tokyo Univ. of Sci.)♭, Tomasz Cieślak (IMPAN) No critical nonlinear diffusion in 1D quasilinear Keller–Segel system ····· 12

35 Toshitaka Nagai (Hiroshima Univ.⋆), Tetsuya Yamada (Fukui Nat. Coll. of Tech.) Boundedness of solutions to a parabolic-elliptic chemotaxis model in $\mathbb{R}^2$ with critical mass ····· 12

36 Xinru Cao (Paderborn Univ.), Shunsuke Kurima (Tokyo Univ. of Sci.), Masaaki Mizukami (Tokyo Univ. of Sci.) Global existence and stabilization in a 3D two-species chemotaxis-Stokes system with competitive kinetics ····· 12

37 Masaaki Mizukami (Tokyo Univ. of Sci.) Improvement of conditions for asymptotic stability in a fully parabolic two-species chemotaxis-competition model ····· 12

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

Shinji Adachi (Shizuoka Univ.) On the uniqueness and the non-degeneracy of positive solutions for a class of semilinear elliptic equations in $\mathbb{R}^N$ and its applications

September 13th (Wed) Conference Room VIII

9:15–12:00

38 Taiga Kumagai (Waseda Univ.) Asymptotics of the solutions of Hamilton–Jacobi equations with large drift term ····· 9

39 Takahiro Kosugi (Tohoku Univ.)♭ Equivalence of viscosity solutions between obstacle problems and gradient constraint problems ····· 12

40 Haruya Mizutani (Osaka Univ.) Resolvent estimates for scaling-critical Schrödinger operators and applications II ····· 12

41 Masahito Ohta (Tokyo Univ. of Sci.) Strong instability of standing waves for nonlinear Schrödinger equations with a partial confinement ····· 12

42 Gaku Hoshino (Osaka Univ.) Analyticity of solutions to the nonlinear Schrödinger equations without gauge invariance ····· 9

43 Gaku Hoshino (Osaka Univ.) Analytic smoothing effect for global solutions to a system of Schrödinger equations with large data ····· 9

44 Ryosuke Hyakuna (Waseda Univ.)*, Gaku Hoshino (Osaka Univ.) A well-posedness result for the Hartree equation ····· 9

45 Shinya Kinoshita (Nagoya Univ.) Local well-posedness for the Cauchy problem of the Klein–Gordon–Zakharov system in two and three dimensions ····· 12

46 Yuji Sagawa (Osaka Univ.), Hideaki Sunagawa (Osaka Univ.), Shunsuke Yasuda A sharp lower bound for the lifespan of small solutions to the Schrödinger equation with a subcritical power nonlinearity ····· 12

47 Nobu Kishimoto (Kyoto Univ.)
Yoshio Tsutsumi (Kyoto Univ.)
Ill-posedness of the third order NLS equation with Raman scattering term 12

48 Mamoru Okamoto (Shinshu Univ.)
Tadahiro Oh (Univ. of Edinburgh)
Oana Pocovnicu (Heriot-Watt Univ.)
Probabilistic Cauchy problem for the energy critical nonlinear Schrödinger equations 12

49 Kazuki Aoki (Osaka Univ.)
Global existence of solutions for fourth-order nonlinear Schrödinger equations 12

50 Kota Uriya (Okayama Univ. of Sci.) *
Satoshi Masaki (Osaka Univ.)
Hayato Miyazaki (Tsuyama Nat. Coll. of Tech.)
Long range scattering for nonlinear Schrödinger equations with critical homogeneous nonlinearity in three dimensions 12

51 Itsuko Hashimoto (Kansai Univ./Osaka City Univ.)
Akitaka Matsumura (Osaka Univ.)
Asymototic behavior toward nonlinear waves for radially symmetric solutions of multi-dimensional Burgers equation 9

12:15–12:30 Presentation Ceremony for the 2017 MSJ Analysis Prize

14:15–16:15

52 Motohiro Sobajima * (Tokyo Univ. of Sci.)
Yuta Wakasugi (Ehime Univ.)
Diffusion phenomena for the wave equation with space-dependent damping term growing at infinity 9

53 Motohiro Sobajima (Tokyo Univ. of Sci.)
Yuta Wakasugi (Ehime Univ.)
Weighted energy estimates for wave equation with space-dependent damping term for slowly decaying initial data 9

54 Soichiro Katayama (Osaka Univ.)
Kyouhei Wakasa (Muroran Inst. of Tech.)
Borislav Yordanov (Hokkaido Univ.)
A note on the decay property for dissipative nonlinear wave equations in one space dimension 9

55 Natsumi Yoshida (Ritsumeikan Univ.)
Decay properties of solutions toward a multiwave pattern for the scalar conservation law with the Ostwald–de Waele-type viscosity 12

56 Natsumi Yoshida (Ritsumeikan Univ.)
Large time behavior of solutions toward viscous shock waves to the Cauchy problem for the scalar conservation law with nonlinear flux and viscosity 12

57 Yusuke Sugiyama (Tokyo Univ. of Sci.)
Yunguang Lu (Hangzhou Normal Univ.)
On the global existence of weak solutions to 1D degenerate quasilinear wave equations 12

58 Kunio Hidano (Mie Univ.) *
Kazuyoshi Yokoyama (Hokkaido Univ. of Sci.)
Global existence for a system of quasi-linear wave equations in 3D satisfying the weak null condition 12

59 Akira Hoshiga (Shizuoka Univ.) *
Lower bound of the lifespan of solutions to systems of quasi-linear wave equations with multiple propagation speeds 9

60 Takiko Sasaki (Meiji Univ.)
The blow-up curve for a system of nonlinear wave equations 9

61 Kai Koike (Keio Univ./RIKEN)
Wall effect on the motion of a body immersed in a free molecular flow 12

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

Hiromichi Itou (Tokyo Univ. of Sci.) On analysis for partial differential equations in a cracked domain

September 14th (Thu) Conference Room VIII

9:00–12:00

62 Hiroyuki Takamura (Future Univ. Hakodate), Lai Ning-An (Lishui Univ.) Blow-up and lifespan estimate of solutions of semilinear damped wave equations with sub-Strauss exponent ····· 12

63 Masakazu Kato (Muroran Inst. of Tech.), Miku Sakuraba Global existence and blow-up for wave equations with weighted nonlinear term in 3D ····· 12

64 Takuto Imai (Future Univ. Hakodate), Hiroyuki Takamura (Future Univ. Hakodate), Masakazu Kato (Muroran Inst. of Tech.), Kyouhei Wakasa (Muroran Inst. of Tech.) The lifespan of solutions to semilinear damped wave equations with scale invariant in two space dimension ····· 12

65 Yuka Teramoto (Kyushu Univ.), Yoshiyuki Kagei (Kyushu Univ.), Takaaki Nishida (Kyoto Univ.) Bifurcation of the compressible Taylor vortex ····· 12

66 Masashi Aiki (Tokyo Univ. of Sci.) Motion of a vortex filament on a slanted plane ····· 12

67 Huanyuan Li (Univ. of Tokyo) Global strong solutions to the three dimensional density-dependent MHD equations ····· 12

68 Yusuke Sugiyama (Tokyo Univ. of Sci.) Blow-up of solutions to the 1D Euler equation with valuable damping coefficient ····· 12

69 Jan Březina (Tokyo Tech), Eduard Feireisl (Czech Acad. of Sci.) On measure-valued solutions to the complete Euler system ····· 12

70 Keiichi Watanabe (Waseda Univ.) Compressible-incompressible two phase flow of Korteweg type with phase transition: model problem ····· 9

71 Naoto Kajiwara (Univ. of Tokyo) Solvability and stability for the phase-field Navier–Stokes equations via maximal regularity ····· 12

72 Kenji Nakamura (Univ. of Tsukuba), Takayuki Kobayashi (Osaka Univ.), Takayuki Kubo (Univ. of Tsukuba) Local energy decay estimate of solutions to the hyperbolic type Stokes equations ····· 9

73 Hirokazu Saito (Waseda Univ.) Maximal L_p-L_q regularity for a compressible fluid model of Korteweg type on general domains ····· 9

74 Ken Furukawa (Univ. of Tokyo) ♭ On asymptotic stability of the three dimensional Oseen type Navier–Stokes flow ····· 9

75 Hiroyuki Tsurumi (Waseda Univ.) Extension criterion via partial components of vorticity on strong solutions to the Navier–Stokes equations in higher dimensions ····· 12

76 Okihiro Sawada (Gifu Univ.) Locally-in-time well-posedness of the primitive equations with linearly growing initial data ····· 12

14:15–16:15

77 Youhei Tsutsui (Shinshu Univ.), Takahiro Okabe (Hirosaki Univ.), Jayson Mesitas Cunanan (Saitama Univ.) — Asymptotic stability of stationary solutions to the Navier–Stokes equations in Besov spaces · · · · · 9

78 Hideo Kozono (Waseda Univ.) *, Yutaka Terasawa (Nagoya Univ.), Yuta Wakasugi (Ehime Univ.) — Finite energy of generalized suitable weak solutions to the Navier–Stokes equations and the Liouville type theorem · · · · · 9

79 Toshiaki Hishida (Nagoya Univ.) ♭ — Large time behavior of a generalized Oseen evolution operator, with applications to the Navier–Stokes flow past a rotating obstacle · · · · · 12

80 Toshiaki Hishida (Nagoya Univ.) ♭, Paolo Maremonti (Univ. degli Studi della Campania) — Navier–Stokes flow past a rigid body: attainability of steady solutions as limits of unsteady weak solutions · · · · · 12

81 Yoshihiro Shibata (Waseda Univ.) — Local well-posedness for the Magnetohydrodynamics in the different two liquids case · · · · · 9

82 Yoshihiro Shibata (Waseda Univ.) — Maximal L_p-L_q regularity theorem for the linearized electro-magnetic field equations · · · · · 9

83 Yoshihiro Shibata (Waseda Univ.) — Local well-posedness for the two component flow · · · · · 9

84 Yoshihiro Shibata (Waseda Univ.) — Global well-posedness for the two component flow · · · · · 9

85 Akira Okada (Kyoto Univ.), Hideo Kozono (Waseda Univ.), Senjo Shimizu (Kyoto Univ.) — C^∞ regularity of strong solutions to the Navier–Stokes equations and its decay property · · · · · 12

86 Kenta Kaneko (Waseda Univ.), Hideo Kozono (Waseda Univ.), Senjo Shimizu (Kyoto Univ.) — Stationary solution to the Navier–Stokes equations in the scaling invariant Besov space · · · · · 12

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

Ryo Takada (Kyushu Univ.) — Dispersive estimates for rotating fluids and stably stratified fluids

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Real Analysis

September 13th (Wed) Conference Room VII

9:30–12:00

1 Takanobu Hara (Hokkaido Univ./Tokyo Metro. Univ.) — Interpolation properties of reverse Hölder inequalities and their applications to Harnack inequalities · · · · · 15

2 Aoi Honda (Kyushu Inst. of Tech.), Yoshiaki Okazaki (Fuzzy Logic Systems Inst.) — Linear subspace of L_0 generated by integrable step functions · · · · · 15

3 Jun Kawabe (Shinshu Univ.) — The Vitali convergence theorem for Choquet integrals · · · · · 15

4 Fumiaki Kohsaka (Tokai Univ.) — Fixed points of spherically nonspreading mappings in complete geodesic metric spaces with curvature bounded above ····· 15

5 Shin-ya Matsushita (Akita Pref. Univ.) — On the convergence of the proximal point algorithm ····· 15

6 Takayuki Tamura (Chiba Univ.), Mikio Kato (Kyushu Inst. of Tech.*) — On uniform non-squareness of direct sums of Banach spaces ····· 15

7 Tomonari Suzuki (Kyushu Inst. of Tech.) — Redefinition of τ-distance ····· 15

8 Sachiko Atsushiba (Univ. of Yamanashi) — Attractive point theorems and convergence theorems for some classes of nonlinear mappings in Hilbert spaces ····· 15

9 Toshikazu Watanabe (Tokyo Univ. of Information Sci.) — Fixed point theorems in ordered metric spaces and applications to nonlinear boundary value problems ····· 15

14:15–15:45

10 Ryutaro Arai (Ibaraki Univ.), Eiichi Nakai (Ibaraki Univ.) — Commutators of Calderón–Zygmund and generalized fractional integral operators on generalized Morrey spaces with variable growth condition ····· 15

11 Nao Takemoto (Nara Women's Univ.), Shinya Moritoh (Nara Women's Univ.) — Some variations on wavelet reconstruction formulae ····· 15

12 Takeshi Iida (Fukushima Nat. Coll. of Tech.) — On sufficient conditions for the boundedness of the fractional maximal operator between weighted L^p-spaces with different weights ····· 15

13 Hiroki Saito (Nihon Univ.), Hitoshi Tanaka (Tsukuba Univ. of Tech.), Toshikazu Watanabe (Tokyo Univ. of Information Sci.) — Maximal operators with the weighted Hausdorff content ····· 15

14 Akihiko Miyachi ♭ (Tokyo Woman's Christian Univ.), Naohito Tomita (Osaka Univ.) — Boundedness of bilinear pseudo-differential operators with exotic symbols ····· 15

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

Akihiro Nakamura (Tokai Univ.) — Nonharmonic Fourier series and Riesz bases

September 14th (Thu) Conference Room VII

9:30–12:00

15 Johannes Lankeit (Paderborn Univ.), Masaaki Mizukami (Tokyo Univ. of Sci.) — How far does small chemotactic interaction perturb the Fisher–KPP dynamics on bounded convex domains? ····· 15

16 Tobias Black (Paderborn Univ.), Johannes Lankeit (Paderborn Univ.), Masaaki Mizukami (Tokyo Univ. of Sci.) — Global existence in a Keller–Segel–(Navier–)Stokes system with singular sensitivity ····· 15

17 Taishi Motoda (Kyoto Univ. of Edu.), Takeshi Fukao (Kyoto Univ. of Edu.) — Abstract approach to degenerate parabolic equations with dynamic boundary conditions ····· 15

18 Risei Kano (Kochi Univ.)
Takeshi Fukao (Kyoto Univ. of Edu.)
The existence of solutions for the one-dementional hardening model 15

19 Takeshi Fukao (Kyoto Univ. of Edu.)
Shunsuke Kurima (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
Cahn–Hilliard approach to nonlinear diffusion equations on unbounded domains 15

20 Takeshi Fukao (Kyoto Univ. of Edu.)
Pierluigi Colli (Pavia Univ.)
Cahn–Hilliard equation on the boundary with bulk condition 15

21 Noriaki Yamazaki (Kanagawa Univ.)
Nobuyuki Kenmochi (Univ. of Warsaw)
Ken Shirakawa (Chiba Univ.)
New class of doubly nonlinear evolution equations governed by double time-dependent subdifferentials 15

22 Ryota Nakayashiki (Chiba Univ.)
Ken Shirakawa (Chiba Univ.)
Qualitative properties of the solution to Allen–Cahn type equations with singularities subject to dynamic boundary condition 15

23 Ken Shirakawa (Chiba Univ.)
Hiroshi Watanabe (Oita Univ.)
Ryota Nakayashiki (Chiba Univ.)
Salvador Moll (Univ. Valencia)
Structures of steady-state solutions to a one-dimensional mathematical model of grain boundary motion 15

14:15–16:00

24 Toyohiko Aiki (Japan Women's Univ.)
Sergey A. Timoshin (Siberian Branch Russian Acad. Sci.)
Control problem for the one-dimensional moisture transport equation appearing in concrete carbonation process 15

25 Kosuke Kita (Waseda Univ.)
Mitsuharu Ôtani (Waseda Univ.)
Hiroki Sakamoto (Hitachi-GE Nuclear Energy, Ltd.)
On some elliptic systems arising from a nuclear reactor model 15

26 Takanori Kuroda (Waseda Univ.)
Mitsuharu Ôtani (Waseda Univ.)
Solvability of complex Ginzburg–Landau equations with non-dissipative terms in general domains 15

27 Hiroshi Watanabe (Oita Univ.)
Solvability of degenerate parabolic-elliptic systems 15

28 Kota Kumazaki (Tomakomai Nat. Coll. of Tech.)
On a free boundary problem for moisture swelling process in porous materials 15

29 Yutaka Tsuzuki (Hiroshima Shudo Univ.)
Initial-boundary value problems for Vlasov–Poisson systems with angle error in magnetic field 15

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

Yutaka Tsuzuki (Hiroshima Shudo Univ.)
Global existence of solutions to Vlasov–Poisson equations with external magnetic field in a half space

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Functional Analysis

September 11th (Mon) Conference Room VI

14:15–16:45

1 Yoritaka Iwata (Tokyo Tech)
Nonlinearity as for the logarithmic representation of infinitesimal generators 15

2 Kazuyuki Wada (Nat. Inst. of Tech., Hachinohe Coll.) ♭ Spectrum of N-body Stark Hamiltonians ····· 15

3 Sohei Ashida (Kyoto Univ.) Absence of singular continuous spectrum and propagation estimates of multistate Schrödinger operators ····· 15

4 Hisashi Morioka (Doshisha Univ.), Naotaka Shoji (Univ. of Tsukuba) Interior transmission eigenvalue problems on compact manifolds with smooth boundary ····· 15

5 Masaki Kawamoto (Tokyo Univ. of Sci.), Taisuke Yoneyama (Tokyo Univ. of Sci.) Strichartz estimates for harmonic potential with time-decaying coefficient ····· 15

6 Hiroaki Niikuni (Maebashi Inst. of Tech.) Spectra of periodic Schrödinger operators on zigzag nanotubes with multiple chemical bonds ····· 15

7 Hiroyuki Yamagishi (Tokyo Metropolitan Coll. of Indus. Tech.) The best constant of Sobolev inequality corresponding to a bending problem of a beam under tension on an elastic foundation 3 ····· 15

8 Hiroshi Ito (Ehime Univ.) * On the square root of the Pauli operator with a diverging potential ····· 15

9 Hiroshi Ito (Ehime Univ.) * Resonances of Dirac operators with a diverging potential ····· 10

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

Masaki Kawamoto (Tokyo Univ. of Sci.) Scattering theory for periodically pulsed magnetic field

September 12th (Tue) Conference Room VI

9:45–12:00

10 Rumi Togashi (Nagaoka Nat. Coll. of Tech.) Characterization of maps by peripheral spectra and multiplication ··· 15

11 Takeshi Miura (Niigata Univ.), Hiroyuki Takagi (Shinshu Univ.) Isometries on $C^1([0,1])$ ····· 15

12 Keiichi Watanabe (Niigata Univ.) On the Möbius gyrovector spaces by A. A. Ungar ····· 15

13 Osamu Hatori (Niigata Univ.) Peculiar homomorphisms on admissible quadruples ····· 15

14 Ryo Tabata (Ariake Nat. Coll. of Tech.) Schur's immanant inequalities and Littlewood–Richardson's correspondence ····· 15

15 Cid Reyes-Bustos (Kyushu Univ.), Kazufumi Kimoto (Univ. of Ryukyus), Masato Wakayama (Kyushu Univ.) Spectral degeneracies in the asymmetric quantum Rabi model ····· 15

16 Nobukazu Shimeno (Kwansei Gakuin Univ.), Hiroshi Oda (Takushoku Univ.) Harish-Chandra's $\boldsymbol{c}$-functions for small K-types ····· 15

17 Ryosuke Nakahama (Univ. of Tokyo) Intertwining operators between holomorphic discrete series representations ····· 15

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

Toshihisa Kubo (Ryukoku Univ.) Differential symmetry breaking operators of $O(n,1)$ for differential forms

September 13th (Wed) Conference Room VI

9:00–12:00

18 Masayuki Fujimoto (Osaka Kyoiku Univ.)
Yuki Seo (Osaka Kyoiku Univ.)
Matrix Wielandt inequality via the matrix geometric mean ····· 15

19 Junichi Fujii (Osaka Kyoiku Univ.)
Yuki Seo (Osaka Kyoiku Univ.)
Tsallis relative operator entropy with negative parameters ····· 15

20 Hiroaki Tohyama (Maebashi Inst. of Tech.)
Hiroshi Isa (Maebashi Inst. of Tech.)
Masatoshi Ito (Maebashi Inst. of Tech.)
Eizaburou Kamei
Masayuki Watanabe (Maebashi Inst. of Tech.)
The n-th divergence on the path $A \natural_t B$ ····· 15

21 Masatoshi Ito (Maebashi Inst. of Tech.)
Estimations of the Lehmer mean by the Heron mean ····· 15

22 Takeaki Yamazaki (Toyo Univ.)
Masatoshi Ito (Maebashi Inst. of Tech.)
Takayuki Furuta (Hirosaki Univ.*)
Masahiro Yanagida (Tokyo Univ. of Sci.)
Upper and lower bounds, and operator monotonicity of an extension of the Petz–Hasegawa function ····· 10

23 Masaru Nagisa (Chiba Univ.)
Imam Nugraha Albania (Univ. Pendidikan Indonesia)
Positive definite functions and operator norm inequalities ····· 15

24 Shûichi Ohno (Nippon Inst. of Tech.) *
The Toeplitzness of weighted composition operators ····· 10

25 Masatoshi Enomoto *
Yasuo Watatani (Kyushu Univ.)
Configulation problem of two subspaces ····· 15

26 Tsuyoshi Kajiwara (Okayama Univ.)
Yasuo Watatani (Kyushu Univ.)
C*-algebra associated with Seirpinski carpet ····· 15

27 Takahiro Sudo (Univ. of Ryukyus)
The K-theory for the group and subgroup C^*-algebras of the special or general linear groups over integers ····· 15

28 Kengo Matsumoto * (Joetsu Univ. of Edu.)
Asymptotic continuous orbit equivalence of hyperbolic dynamics and Ruelle C*-algebras ····· 15

14:15–15:30

29 Yuhei Suzuki (Nagoya Univ.)
On pure infiniteness of crossed products of minimal extensions ····· 15

30 Norio Nawata (Osaka Kyoiku Univ.)
Trace scaling automorphisms of $\mathcal{W} \otimes \mathbb{K}$ ····· 15

31 Yasuhiko Sato (Kyoto Univ.)
Projections associated with quasidiagonality ····· 15

32 Yusuke Sawada (Nagoya Univ.)
Shigeru Yamagami (Nagoya Univ.)
The bicategory of W*-bimodules ····· 15

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

Yusuke Isono (Kyoto Univ.)
Deformation/rigidity theory and type III von Neumann algebras

Statistics and Probability

September 11th (Mon) Conference Room I

9:15–12:00

1 Tamio Koyama (Kobe Univ.) — An inversion formula utilizing hyperfunctions and it's application · · · · 15

2 Hiroki Takahashi (Keio Univ.), Mao Shinoda (Keio Univ.) — Lyapunov optimization for non-generic one-dimensional expanding Markov maps · · · · 15

3 Johannes Jaerisch (Shimane Univ.), Hiroki Sumi (Kyoto Univ.) — Spectral gap property for random dynamics on the real line and the Hölder regularity of generalised Takagi functions · · · · 15

4 Naoto Shimaru (Okayama Univ. of Sci.), Keizo Takashima (Okayama Univ. of Sci.) — Another proof of Weyl's lemma · · · · 10

5 Hideaki Uemura (Aichi Univ. of Edu.), Shigeyoshi Ogawa (Ritsumeikan Univ.) — On the reconstruction of random function from its SFCs defined by an arbitrary CONS · · · · 15

6 Kiyoiki Hoshino (Osaka Pref. Univ.) — Identification of finite variation processes from the SFC · · · · 15

7 Masato Hoshino (Waseda Univ.) — Global well-posedness of complex Ginzburg–Landau equation with a space-time white noise · · · · 15

8 Masato Hoshino (Waseda Univ.), Tadahisa Funaki (Waseda Univ.) — A coupled KPZ equation, its two types of approximations and existence of global solutions · · · · 15

9 Masaki Wada (Fukushima Univ.) — Large time asymptotics for fundamental solutions of critical Schrödinger operators · · · · 15

14:15–15:00

10 Kazuhiro Yoshikawa (Ritsumeikan Univ.), Takahiro Aoyama (Okayama Univ.) — Composed order statistics and multivariate compound Poisson processes · · · · 15

11 Masatake Hirao (Aichi Pref. Univ.) — Frame potentials of determinantal point processes on the d-sphere · · · · 15

12 Masato Takei (Yokohama Nat. Univ.), Tomohiro Ishikawa (Yokohama Nat. Univ.) — Vertex-reinforced random walks on complete bipartite graphs · · · · 10

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

Kazuki Okamura (Kyoto Univ.) — Several properties for random walks on graphs

16:30–17:30 Talk Invited by Statistics and Probability Section

Akira Sakai (Hokkaido Univ.) — Recent progress in researches on phase transitions and critical behavior for Ising ferromagnets

September 12th (Tue) Conference Room I

9:20–11:30

13 Toshiharu Fujita (Kyushu Inst. of Tech.), Naoki Saikawa (Kyushu Inst. of Tech.) — On nonserial dyanmic programming —Converging branch systems— · · · · 15

14 Kazuki Matsubara (ChuoGakuin Univ.)
Sanpei Kageyama (Tokyo Univ. of Sci.)
The existence of two-pairwise additive cyclic BIB designs of block size two 15

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

16 Xiao-Nan Lu (Tokyo Univ. of Sci.)
Masakazu Jimbo (Chubu Univ.)
Locating arrays with error-correcting ability 15

17 Kanta Naito (Shimane Univ.)
Takuma Yoshida (Kagoshima Univ.)
Regression with stagewise minimization on the risk 15

18 Yoshihiko Maesono (Kyushu Univ.)
Masanari Motoyama (ZEN-NOH)
On direct kernel estimator of density ratio 10

19 Yoshihide Kakizawa (Hokkaido Univ.)
Symmetrical-based q-MIG kernel density estimation 15

11:30–12:00 Research Section Assembly

13:15–14:15

20 Kiyotaka Iki (Tokyo Univ. of Sci.)
Decomposition of diamond model for square contingency tables with ordered categories 10

21 Kouji Tahata (Tokyo Univ. of Sci.)
Asymmetry model and decomposition of symmetry for square contingency tables 10

22 Ayaka Yagi (Tokyo Univ. of Sci.)
Takashi Seo (Tokyo Univ. of Sci.)
Transformed T^2-type statistics for testing equality of two mean vectors with monotone samples 15

23 Masashi Hyodo (Osaka Pref. Univ.)
Hayate Ogawa (Osaka Pref. Univ.)
Takahiro Nishiyama (Senshu Univ.)
Simultaneous test of mean vector and variance covariance matrix using Euclidean norm for multi-sample problem 15

September 13th (Wed) Conference Room I

9:40–12:10

24 Koji Tsukuda (Univ. of Tokyo)
Hiroshi Kurata (Univ. of Tokyo)
Covariance structure associated with equality between two general ridge estimators 15

25 Aki Ishii (Tokyo Univ. of Sci.)
Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)
Equality tests of high-dimensional covariance matrices based on eigenstructures 15

26 Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)
Asymptotic normality for inference on high-dimensional mean vectors under the SSE model 15

27 Yugo Nakayama (Univ. of Tsukuba)
Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)
Asymptotic properties of support vector machines in high-dimension, low-sample-size settings 15

28 Yujie Xue (Waseda Univ.)
Taniguchi Masanobu (Waseda Univ.)
Modified LASSO estimators of the models with long-memory disturbances 10

29 Kou Fujimori (Waseda Univ.) The Dantzig selector for high-dimensional linear models of diffusion processes · · · · · 10

30 Hideaki Nagahata (Waseda Univ.) Masanobu Taniguchi (Waseda Univ.) Analysis of variance for high dimensional time series · · · · · 15

31 Kazuhiko Takano (Shinshu Univ.) Geometric properties of system spaces of autoregressive process of degree 1 · · · · · 10

32 Yan Liu (Waseda Univ.) A test for stationarity by copula spectral density · · · · · 15

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

Tomonari Sei (Univ. of Tokyo) A scaling problem of multi-dimensional probability distributions

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

Fumiya Akashi (Waseda Univ.) Robust statistical inference for non-standard time series models based on the empirical likelihood and normalization methods

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Applied Mathematics

September 11th (Mon) Conference Room IV

10:00–12:00

1 Shohei Satake (Kobe Univ.) Constructions of Ramanujan graphs and related results · · · · · 15

2 Tomoko Adachi (Toho Univ.) Ordering of the complete bipartite graph and its application to rectangular RAID system · · · · · 10

3 Sho Fujimura (Fukuoka Univ.) Shuji Shiraishi (Fukuoka Univ.) On the number of perfect matchings of line graphs · · · · · 10

4 Raiji Mukae (Kisarazu Nat. Coll. of Tech.) Terukazu Sano (Kisarazu Nat. Coll. of Tech.) Impurity of projective planar graphs · · · · · 15

5 Kohei Tanaka (Shinshu Univ.) Discrete Euler calculus and its application to the counting problem · · · · · 15

6 Aoi Honda (Kyushu Inst. of Tech.) Yoshiaki Okazaki (Fuzzy Logic Systems Inst.) Monotonicity of inclusion-exclusion integral and interaction operator · · · · · 15

7 Yoshitaka Sasaki (Osaka Univ. of Health and Sport Sci.) Yasuo Ohno (Tohoku Univ.) Counting restricted lonesum matrices · · · · · 10

8 Atsuhiko Mizusawa Diogo Kendy Matsumoto (Shibaura Inst. of Tech.) On characterization of simple non-confusing travel groupoids · · · · · 15

14:15–15:45

9 Kazuki Matsubara (ChuoGakuin Univ.)
Chie Nara (Meiji Univ.)
Continuous flattening of α-trapezoidal polyhedra ····· 15

10 Kiyoshi Ando
(Nat. Inst. of Information / JST ERATO)
A new forbidden subgraph for 5-contractible edges ····· 15

11 Akira Saito (Nihon Univ.)
Colton Magnant
(Georgia Southern Univ.)
Rainbow forbidden subgraphs in edge-colored graphs ····· 15

12 Shinya Fujita (Yokohama City Univ.)
Degree conditions for cycles in edge-colored graphs ····· 10

13 Morimasa Tsuchiya (Tokai Univ.)
Shinichiro Tashiro (Tokai Univ.)
On series parallel orders and strict-double-bound graphs ····· 10

14 Momoko Hayamizu
(Inst. of Stat. Math. / JST PRESTO)
Shizuo Kaji
(Yamaguchi Univ. / JST PRESTO)
Satoru Fujishige
(Kyoto Univ. / Kyoto Univ.*)
On the size of universal tree-based networks ····· 15

16:00–17:00 Talk Invited by Applied Mathematics Section

Shuya Chiba (Kumamoto Univ.)
2-factors with a specified number of components and degree sum conditions

September 12th (Tue) Conference Room IV

9:30–12:00

15 Hideo Mitsuhashi (Hosei Univ.)
Norio Konno (Yokohama Nat. Univ.)
Kaname Matsue
(Kyushu Univ. / Kyushu Univ.)
Iwao Sato (Oyama Nat. Coll. of Tech.)
Quaternionic quantum walks of Szegedy type on finite graphs and second weighted zeta functions ····· 15

16 Iwao Sato (Oyama Nat. Coll. of Tech.)
Hideo Mitsuhashi (Hosei Univ.)
Hideaki Morita
(Muroran Inst. of Tech.)
A generalized Bartholdi zeta function of a graph ····· 15

17 Norio Konno (Yokohama Nat. Univ.)
Renato Portugal (LNCC)
Iwao Sato (Oyama Nat. Coll. of Tech.)
Etsuo Segawa (Tohoku Univ.)
Partition-based quantum walk ····· 15

18 Kaname Matsue
(Kyushu Univ. / Kyushu Univ.)
Osamu Ogurisu (Kanazawa Univ.)
Etsuo Segawa (Tohoku Univ.)
Simplicial quantum walks version 2 —correspondence to coined walks on graphs— ····· 15

19 Kaname Matsue
(Kyushu Univ. / Kyushu Univ.)
Osamu Ogurisu (Kanazawa Univ.)
Etsuo Segawa (Tohoku Univ.)
Simplicial quantum search ····· 15

20 Yusuke Yoshie (Tohoku Univ.)
Etsuo Segawa (Tohoku Univ.)
Tetsuji Taniguchi (Hiroshima Inst. of Tech.)
Sho Kubota (Tohoku Univ.)
A periodicity of the Grover walk on Bethe trees 10

21 Daiju Funakawa (Hokkaido Univ.)
Toru Fuda (Hokkaido Univ.)
Satoshi Sasayama (Hokkaido Univ.)
Akito Suzuki (Shinshu Univ.)
Localization of a 2-dimensional 4-state quantum walk 15

22 Toru Fuda (Hokkaido Univ.)
Daiju Funakawa (Hokkaido Univ.)
Akito Suzuki (Shinshu Univ.)
Weak limit distribution of a one-dimensional split-step quantum walk 15

23 Tomohiro Ikkai (Nagoya Univ.)
Yusuke Sawada (Nagoya Univ.)
Hypergroups and random walks on graphs 15

September 13th (Wed) Conference Room IV

9:30–11:40

24 Shunzi Horiguchi
Extended Newton method and fractals (in case of real variable function) 15

25 Ippei Obayashi (Tohoku Univ.)
Data analysis using persistence homology and machine learning 15

26 Fuminori Sakaguchi (Univ. of Fukui)
Some possible relationships among an integer-type algorithm for solving ODEs, difference equations and number theory 15

27 George Miyake (Ube Nat. Coll. of Tech.)
Yuji Katsuta (Ube Nat. Coll. of Tech.)
A computational method for stationary solutions in nonlinear autonomous dynamical system 10

28 Koichi Anada (Waseda Univ. Senior High School)
Tetsuya Ishiwata (Shibaura Inst. of Tech.)
Takeo Ushijima (Tokyo Univ. of Sci.)
A numerical method of estimating blow-up rates for nonlinear evolution equations by using rescaling algorithm 15

29 Tomoki Uda (Kyoto Univ.)
Shape derivative and its application to vortex patch equilibria in a periodic array 15

30 Takuya Tsuchiya (Waseda Univ.)
Makoto Nakamura (Yamagata Univ.)
On the numerical analysis of the Cauchy problem for semi-linear Klein–Gordon equation in de Sitter spacetime 15

31 Ryosuke Urakawa (Waseda Univ.)
Tsuchiya Takuya (Waseda Univ.)
Yoneda Gen (Waseda Univ.)
Verification of Einstein's equation by geodesics 15

14:15–16:15

32 Takehiko Kinoshita
Yoshitaka Watanabe (Kyushu Univ.)
Mitsuhiro T. Nakao (Waseda Univ.)
An improvement of norm bound computation for inverses of linear operators in Hilbert spaces 15

33 Tomoya Kemmochi (Univ. of Tokyo)
Time-global error estimates for finite element approximation of parabolic problems 15

34 Yuki Chiba (Univ. of Tokyo), Norikazu Saito (Univ. of Tokyo) — Discontinuous Galerkin method for an N-dimensional spherically symmetric Poisson equation ····· 15

35 Yukihiko Nakata (Shimane Univ.) — Delay equations for reinfection dynamics ····· 15

36 Hiromasa Suzuki (Shiga Univ.), Yasumasa Nishiura (Tohoku Univ.) — Analytical and numerical approaches to codimension-two bifurcation in a three-component reaction-diffusion system ····· 15

37 Yuuki Shimizu (Kyoto Univ.), Takashi Sakajo (Kyoto Univ.) — Toroidal geometry stabilizing a ring of N point vortices on a torus ····· 15

38 Mitsuru Shibayama (Kyoto Univ.)♭ — Non-integrability of the restricted n-body problem ····· 15

16:30–17:30 Talk Invited by Applied Mathematics Section

Kaname Matsue (Kyushu Univ. / Kyushu Univ.) — Saddles create connections: Rigorous numerics and dynamical systems

September 14th (Thu) Conference Room IV

9:30–10:30

39 Kazuhiro Oeda (Waseda Univ.) — Stationary problem of a diffusive prey-predator system with protection zones ····· 15

40 Takashi Teramoto (Asahikawa Medical Univ.), Peter van Heijster (Queensland Univ. of Tech.), Chao-Nien Chen (Nat. Tsing-Hua Univ.), Yasumasa Nishiura (Tohoku Univ.) — An action functional approach to localized patterns in a three-component FitzHugh–Nagumo model ····· 10

41 Takashi Suzuki (Osaka Univ.) — Bone metabolism modeling —break down of dynamical equilibrium ·· 5

42 Takashi Suzuki (Osaka Univ.) — Cell signal modeling —reproducibility of damping oscillation ····· 5

43 Yasumasa Nishiura (Tohoku Univ.), Edgar Avalos (Tohoku Univ.), Takashi Teramoto (Asahikawa Medical Univ.), Hiroshi Yabu (Tohoku Univ.) — Lamellae to onion transformation in block copolymer nanoparticles via coupled Cahn–Hilliard equations ····· 15

10:45–11:45 Talk Invited by Applied Mathematics Section

Naoto Nakano (JST PRESTO / Hokkaido Univ.) — Revisiting delay-embedding in terms of Hilbert–Schmidt integral operator theory: Towards dynamical reconstruction for empirical modelling

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Topology

September 11th (Mon) Conference Room III

10:00–12:00

1 Naoyuki Monden (Osaka Electro-Comm. Univ.) — Signatures of surface bundles ····· 15

2 Naoyuki Monden (Osaka Electro-Comm. Univ.) — Stable commutator lengths of Dehn twists · · · · · 15

3 Hironobu Naoe (Tohoku Univ.) — Corks and their shadow complexities · · · · · 10

4 Kouichi Yasui (Osaka Univ.) — Nonexistence of twists and surgeries generating exotic 4-manifolds · · · · 15

5 Takahiro Oba (Tokyo Tech) — Surfaces in D^4 with the same boundary and fundamental group · · · · · 15

6 Shinpei Baba (Univ. Heidelberg) — Neck-pinching of $\mathbb{C}P^1$-structures on surfaces and convergence of holonomy representations · · · · · 15

7 Norihisa Takahashi (Ritsumeikan Univ.), Hiraku Nozawa (Ritsumeikan Univ.) — On a classification of periodic maps on surfaces which commute with certain involutions · · · · · 15

8 Mao Okada (Univ. of Tokyo) — Local rigidity of certain actions of nilpotent-by-cyclic groups on the sphere · · · · · 10

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

Nariya Kawazumi (Univ. of Tokyo) — Mapping class groups, the Goldman–Turaev Lie bialgebra and the Kashiwara–Vergne problem

15:30–17:30

9 Yuta Nozaki (Univ. of Tokyo) — Every lens space contains a genus one homologically fibered knot · · · · · 15

10 Michihiko Fujii (Univ. of Ryukyus) — The spherical growth series for certain Seifert fiber spaces · · · · · 10

11 Teruaki Kitano (Soka Univ.) — Finiteness of the values of Reidemeister torsion for a spliced sum along knots with $SL(2;\mathbb{C})$-irreducible representations · · · · · 10

12 Yuichi Yamada (Univ. of Electro-Comm.) — Exceptional Dehn surgeries along the Mazur link · · · · · 10

13 Toshio Saito (Joetsu Univ. of Edu.) — An approach to defining Hempel distance of generalized Heegaard splittings · · · · · 10

14 Keiichi Sakai (Shinshu Univ.), Ryutaro Sugiyama — Generalized connected sum formula for the Arnold invariants of generic plane curves · · · · · 15

15 Akane Ishigami (Tokai Univ.) — Minimal 5-charts of type (2,4,2) with a lens of type 1 · · · · · 15

16 Inasa Nakamura (Univ. of Tokyo) — Simplifying covering surface-knots by an addition of 1-handles with chart loops · · · · · 10

17 Shin Satoh (Kobe Univ.) — Ribbon surface-tangles and doubles of surface-links · · · · · 10

September 12th (Tue) Conference Room III

10:10–10:25 Presentation Ceremony for the 2017 MSJ Geometry Prize

10:30–11:30 Award Lecture for the 2017 MSJ Geometry Prize

Kobayashi Osamu ♭ — Weyl's gauge theory, the Schwarzian derivative and a sphere theorem

13:00–14:00 Award Lecture for the 2017 MSJ Geometry Prize

Makoto Sakuma (Hiroshima Univ.) — Fiber surfaces vs Heegaard surfaces of 3-manifolds

September 13th (Wed) Conference Room III

10:00–12:00

18 Miyazawa Haruko (Tsuda Coll.)
Kodai Wada (Waseda Univ.)
Akira Yasuhara (Tsuda Coll.)
Invariants of welded links derived from multiplexing of crossings ····· 10

19 Yasutaka Nakanishi (Kobe Univ.)
Shin Satoh (Kobe Univ.)
A set of local moves generating the writhe polynomial ····· 10

20 Keiju Kato (Tokyo Tech)
Interior polynomial for signed bipartite graphs and the HOMFLY polynomial ····· 15

21 Takuji Nakamura (Osaka Electro-Comm. Univ.)
Yasutaka Nakanishi (Kobe Univ.)
Shin Satoh (Kobe Univ.)
On a partial order of virtual knots ····· 10

22 Takefumi Nosaka (Tokyo Tech)
Hisatoshi Kodani
Milnor invariants via unipotent Magnus embeddings ····· 10

23 Takefumi Nosaka (Tokyo Tech)
Cocycles of nilpotent quotients of free groups ····· 10

24 Anh T. Tran (Univ. of Texas, Dallas)
Yoshikazu Yamaguchi (Akita Univ.)
Higher-dimensional twisted Alexander invariants for metabelian representations ····· 10

25 Noboru Ito (Univ. of Tokyo)
Migiwa Sakurai (Ibaraki Nat. Coll. of Tech.)
On n-trivialities of classical and virtual knots for some unknotting operations ····· 10

26 Hideo Takioka (Osaka City Univ.)
Infinitely many knots with the trivial $(2,1)$-cable Γ-polynomial ····· 10

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

Takahito Naito (Univ. of Tokyo)
Sullivan's coproduct on the reduced loop homology

15:30–17:30

27 Yuya Nishimura (Kyoto Sangyo Univ.)
On model structures of Leinster's weak higher categories. ····· 15

28 Shingo Okuyama (Kagawa Nat. Coll. of Tech.) *
Kazuhisa Shimakawa (Okayama Univ.)
Configuration space of intervals with partially summable labels ····· 15

29 Shunsuke Ichiki (Yokohama Nat. Univ.)
Generic linear perturbations ····· 15

30 Erica Boizan Batista (Federal Univ. of Cariri)
Huhe Han (Yokohama Nat. Univ.)
Takashi Nishimura (Yokohama Nat. Univ.)
Stability of C^∞ convex integrands ····· 15

31 Tatsuro Shimizu (Kyoto Univ.)
Self-intersection of singular sets of maps and signature defect ····· 10

32 Masakazu Nasu *
Essentially weakly onesided resolving endomorphisms of the shift ···· 15

33 Masakazu Nasu *
On the limits of onesided resolving directions of endomorphisms of subshifts of finite type ····· 15

September 14th (Thu) Conference Room Ⅲ

10:00–11:30

34 Hisao Kato (Univ. of Tsukuba) Topological entropy and topological structures of 1-dimensional continua ····· 15

35 Takashi Shimomura (Nagoya Univ. of Economics) Topological rank does not increase by natural extension of Cantor minimals ····· 10

36 Takashi Shimomura (Nagoya Univ. of Economics) Proximal Cantor systems with topological rank 2 are residually scrambled ····· 10

37 Katsuhisa Koshino (Kanagawa Univ.) Hyperspaces homeomorphic to Hilbert spaces ····· 15

38 Tatsuhiko Yagasaki (Kyoto Inst. Tech.) Local and end deformation theorems for uniform embeddings ····· 15

39 Kaori Yamazaki (Takasaki City Univ. of Econ.) Insertion of poset-valued maps with the way-below and -above relations ····· 10

Infinite Analysis

September 11th (Mon) Conference Room V

9:50–12:00

1 Saburo Kakei (Rikkyo Univ.), Ryohei Kubo (Rikkyo Univ.) Solvable chaos with pseudo-invariants and complex multiplication ···· 15

2 Atsuhira Nagano (Univ. of Tokyo) Differential operators from the viewpoint of automorphic forms ····· 15

3 Atsushi Nakayashiki (Tsuda Coll.), Soichi Okada (Nagoya Univ.), Yoko Shigyo (Tsuda Coll.) On the expansion coefficients of KP Tau function ····· 15

4 Hiroshi Ogawara (Kumamoto Univ.) On algebraic independence of solutions to certain algebraic difference equations ····· 15

5 Kôki Itô (Toyohashi Univ. of Tech.) solution sheaf of q-difference module and its cohomology ····· 15

6 Ryo Okawa (Waseda Univ.) Functional equations of Nekrasov functions proposed by Ito–Maruyoshi–Okuda ····· 15

7 Yukiko Konishi (Kyoto Univ.) *, Satoshi Minabe (Tokyo Denki Univ.), Yuuki Shiraishi (Kyoto Univ.) Almost duality for Saito structure and complex reflection groups ····· 15

14:20–16:30

8 Soichi Okada (Nagoya Univ.) — Schur Q-functions associated to the root system of type C ····· 15

9 Masahiko Ito (Univ. of Ryukyus), Masatoshi Noumi (Kobe Univ.) — A determinant formula for the BC_n elliptic hypergeometric integrals of Selberg type ····· 15

10 Kouichi Takemura (Chuo Univ.) — Degenerations of Ruijsenaars–van Diejen operator and q-Painlevé equations ····· 15

11 Tetsu Masuda (Aoyama Gakuin Univ.) — q-analogues of the Sasano system of the fourth order ····· 15

12 Takao Suzuki (Kinki Univ.) — A bilinear form of the generalized q-Painlevé VI system with $W(A^{(1)}_{2n+1})$ symmetry ····· 15

13 Naoto Okubo (Univ. of Tokyo), Takao Suzuki (Kinki Univ.) — Degeneration of q-discrete Painlevé equations and cluster algebras ···· 15

14 Hidehito Nagao (Akashi Coll. of Tech.), Yasuhiko Yamada (Kobe Univ.) — Various singularity configurations for q-Painlevé equations of type $E^{(1)}_7$ ····· 15

15 Tomoyuki Takenawa (Tokyo Univ. of Marine Sci. and Tech.) — Fiber-dependent deautonomization of integrable 2D mappings and discrete Painlevé equations ····· 15

16:40–17:40 Talk Invited by Infinite Analysis Special Session

Shuhei Kamioka (Kyoto Univ.) — Partition functions for reverse plane partitions derived from the two-dimensional Toda molecule

September 12th (Tue) Conference Room V

9:50–12:00

16 Kohei Motegi (Tokyo Univ. of Marine Sci. and Tech.) — Izergin–Korepin analysis on the wavefunctions of the six-vertex models ····· 10

17 Yas-Hiro Quano (Suzuka Univ. of Med. Sci.) — Ising model: 2dim system in a magnetic field and 3 dim system ····· 15

18 Takeo Kojima (Yamagata Univ.) — A bosonization of the quantum affine auperalgebra $U_q(\widehat{sl}(M|N))$ ····· 15

19 Yosuke Saito (Osaka City Univ.) — Elliptic analog of an algebra of fermions and the quantum torus algebra ····· 15

20 Yusuke Ohkubo (Nat. Res. Univ. Higher School of Econ.) — Singular vectors of the level N representation of Ding–Iohara–Miki algebra ····· 15

21 Ivan Chi Ho Ip (Kyoto Univ.) — On tensor product decomposition of positive representations ····· 15

22 Hitoshi Konno (Tokyo Univ. of Marine Sci. and Tech.) — Elliptic quantum group and elliptic weight function ····· 15

23 Hitoshi Konno (Tokyo Univ. of Marine Sci. and Tech.) — Finite-dimensional representations of elliptic quantum group on the Gelfand–Tsetlin basis ····· 15

13:00–14:00 Talk Invited by Infinite Analysis Special Session

Hidetoshi Awata (Nagoya Univ.) — The representation theory of the Ding–Iohara–Miki algebra

Information for Speakers

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

Collaborative works are presented by the underlined authors. The talks with mark are presented through document camera, while ♭ marks denote presentations on blackboard. The speakers with ⋆ marks are professors emeriti. If you find anything wrong in the program, do not hesitate to inform the Chair of Organizing Committee by sending e-mail to the address `program17sept@mathsoc.jp`.

Each conference room is equipped with a blackboard, a document camera, and a projector with VGA interface for PC presentation. 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 or printed sheets for the document camera in case your PC does not fit to the projector.

Information for Participants

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

There are two restaurants: COOP restaurant "Terre" and Kosei-kaikan cafeteria on campus. Their capacity is not so large. Please try also restaurants, supermarkets and convenience stores near the campus.

Official Party

Date: September 12th (Tue) 18:00–20:00

Venue: Hall "sun river", Yamagata Grand Hotel

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

Directions

2017 MSJ AUTUMN MEETING

Dates : September 11th (Mon)–14th (Thu), 2017

Venue : Yamagata University, Kojirakawa Campus
1-4-12 Kojirakawa-machi, Yamagata-shi, 990-8560 Japan

Contact to : Faculty of Science, Yamagata University
1-4-12 Kojirakawa-machi, Yamagata-shi, 990-8560 Japan
yamagata17sept@mathsoc.jp
Phone +81 (0) 90 1791 3483 (During session)

Web Site : http://mathsoc.jp/en/meeting/yamagata17sept/

Conference Rooms

	Place	Research Sections
Conference Room I	Rm. 112, General Education Bldg. 1	Statistics and Probability, Featured Invited Talk
Conference Room II	Rm. 121, General Education Bldg. 1	Geometry, Featured Invited Talk
Conference Room III	Rm. 122, General Education Bldg. 1	Topology
Conference Room IV	Rm. 211, General Education Bldg. 2	Applied Mathematics
Conference Room V	Rm. 212, General Education Bldg. 2	Infinite Analysis, Foundation of Mathematics and History of Mathematics
Conference Room VI	Rm. 213, General Education Bldg. 2	Functional Analysis, Featured Invited Talk
Conference Room VII	Rm. 214, General Education Bldg. 2	Complex Analysis, Real Analysis, Featured Invited Talk
Conference Room VIII	Rm. 221, General Education Bldg. 2	Functional Equations, Featured Invited Talks
Conference Room IX	Rm. 222, General Education Bldg. 2	Algebra, Featured Invited Talk
Plenary Talks	Large Hall, Yamagin Hall (Yamagata Prefectural Hall)	
Open Lectures for Citizens	Hall “Applause”, 3F, Yamagata Terrsa	

Other Rooms

Membership Fee & Extended Abstracts	Rm. B201 (Lecture Room 32), 2F, Science Bldg. 3
Discussion Rooms	Rm. 111, 1F, General Education Bldg. 1
Book Display and Sale	Rm. A201 (Active Learning 1), 2F, Science Bldg. 3
	Rm. A202 (Active Learning 2), 2F, Science Bldg. 3
Executive Committee, MSJ President	Rm. B101 (Lecture Room 31), 1F, Science Bldg. 3
Official Party	Hall “sun river”, Yamagata Grand Hotel