

Remark

- The order of authors is written according to your input order. The first author is not necessarily the speaker. If the talk have two or more authors, then the speaker is underlined.
- The mark \flat means the presentation by using the whiteboard/blackboard. If you talk by using your PC/tablet, no mark is written.
- The mark \star means emeritus professor.
- The number on the right side of the title implies the time of talk (minutes). There are some talks whose limited time is shortened due to various reasons. Your kind understanding is appreciated.

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Complex Analysis	12
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Real Analysis	20
Functional Analysis	23
Statistics and Probability	25
Applied Mathematics	28
Topology	32
Infinite Analysis	34

Foundation of Mathematics and History of Mathematics

March 16th (Mon)

9:30–12:00

- 01-01-0017
1 Teruyuki Yorioka (Shizuoka Univ.) YPFA implies MRP 15
Tadatoshi Miyamoto (Nanzan Univ.)
- 01-01-0011
2 Daisuke Ikegami Generic absoluteness in ZF 15
(Shibaura Inst. of Tech.)
- 01-01-0005
3 Toshimichi Usuba (Waseda Univ.) On generically extendible cardinals 15
- 01-01-0010
4 Diego A. Mejía (Shizuoka Univ.) Lebesgue measure zero modulo ideals 15
- 01-01-0004
5 Kenetsu Fujita (Gunma Univ.) George Boolos’ “The Hardest Logic Puzzle Ever” revisited 15
- 01-01-0003
6 Takahiro Seki (Niigata Univ.) A Gentzen-style formulation for involutive substructural logics with
contraposition 15
- 01-01-0006
7 Yoshihito Tanaka A representation of modal algebras preserving countably many infinitary
(Kyushu Sangyo Univ.) meets and joins 15
- 01-01-0007
8 Yuya Okawa (Chiba Univ.) Generalizations of Bennet’s result on partially conservative sentences
Taishi Kurahashi 15
(Nat. Inst. of Tech., Kisarazu Coll.)

14:15–15:00

- 01-01-0001
9 Shigeru Masuda Study of the Eulerian Integrals by Legendre 15
(Res. Workshop of Classical Fluid Dynamics)
- 01-01-0002
10 Shigeru Masuda The complete functions by Legendre 15
(Res. Workshop of Classical Fluid Dynamics)
- 01-01-0015
11 Hideyuki Majima (Ochanomizu Univ.) Towards the year 2022, the 314th memorial year of SEKI Takakazu
..... 15

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

- 01-02-0002
Masahito Takase Shaping the fountains in Modern Western Mathematics

March 17th (Tue)

9:00–10:30

- 01-01-0014
12 Kohtaro Tadaki (Chubu Univ.) A refinement of quantum information theory by algorithmic randomness
III 15
- 01-01-0012
13 Kenshi Miyabe (Meiji Univ.) The speed of convergence of induction 15
Toru Takisaka
(Nat. Inst. of Information)
- 01-01-0009
14 Hisashi Aratake (Kyoto Univ.) Classifying toposes for existentially closed models and finite-generic
models 15
- 01-01-0013
15 Kazuyuki Tanaka (Tohoku Univ.) On eigen-distributions for Boolean trees in the ID case 15

3 Foundation of Mathematics and History of Mathematics

01-01-0016

- 16 Keita Yokoyama (JAIST) Kripke models and separations of logical principles 15
 Makoto Fujiwara (Meiji Univ.)
 Hajime Ishihara (JAIST)
 Takako Nemoto (JAIST)
 Nobu-Yuki Suzuki (Shizuoka Univ.)

01-01-0008

- 17 Toshiyasu Arai (Univ. of Tokyo) Some contributions to proof theory 15

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

01-02-0001

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

11:45–12:00 Research Section Assembly**12:00–12:15 Mathematics History Team Meeting**

Algebra

March 16th (Mon)

10:00–12:00

02-01-0010

- 1 Hiroyuki Nakasora (Kobe Gakuin Univ.) The extended doubling of the Golay code and the Moonshine code 10

02-01-0002

- 2 Bernhard Mühlherr (Univ. Giessen) Locally finite continuations and Coxeter groups of infinite ranks 10
Koji Nuida (Univ. of Tokyo)

02-01-0069

- 3 Naoki Chigira (Kumamoto Univ.) Solutions of a certain equation on a group and group structure 10

02-01-0035

- 4 Fumihito Oda (Kindai Univ.) Crossed Burnside rings and Mackey 2-functors 10
Yugen Takegahara (Muroran Inst. of Tech.)

02-01-0045

- 5 Akihiko Hida (Saitama Univ.) On the relation of the product of character degrees and the product of conjugacy class lengths of a finite group 10

02-01-0046

- 6 Akihiko Hida (Saitama Univ.) Lower defect groups and vertices of simple modules 10

02-01-0005

- 7 Shigeo Koshitani (Chiba Univ./Chiba Univ.*)^b Brauer indecomposability of Scott modules for the quadratic group $Qd(p)$ 10
Ipek Tuvay (Mimar Sinan Fine Arts Univ.)

02-01-0006

- 8 Shigeo Koshitani (Chiba Univ./Chiba Univ.*)^b Splendid Morita equivalences for principal blocks with dihedral defect groups 10
Caroline Lassueur (TU Kaiserslautern)

02-01-0007

- 9 Shigeo Koshitani (Chiba Univ./Chiba Univ.*)^b Splendid Morita equivalences for principal blocks with generalised quaternion defect groups 10
Caroline Lassueur (TU Kaiserslautern)

02-01-0067

- 10 Mawo Ito (Kyoto Univ.) A product formula for plane partitions derived from a biorthogonal polynomial 10
Shuhei Kamioka (Kyoto Univ.)

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

02-02-0002

- Kenichiro Tanabe (Hokkaido Univ.)^b Representations of some fixed point subalgebra of the vertex algebra associated to a non-degenerate even lattice

15:30–16:50

02-01-0011

- 11 Mamoru Ueda (Kyoto Univ.) Affine super Yangian 10

02-01-0043

- 12 Satoru Urano (Univ. of Tsukuba) Modular moonshine 10

02-01-0055

- 13 Scott Carnahan (Univ. of Tsukuba) Monstrous moonshine over the integers 10

02-01-0054

- 14 Kazuya Kawasetsu (Kumamoto Univ.) Relaxed highest-weight modules over affine vertex operator algebras 10
David Ridout (Univ. of Melbourne)

02-01-0008

- 15 Hiroki Shimakura (Tohoku Univ.) On automorphism groups of the holomorphic VOAs associated with Niemeier lattices and the -1 -isometries 10

02-01-0056

- 16 Ching Hung Lam (Academia Sinica) On a $c=33$ extremal VOA 10
Hiroschi Yamauchi (Tokyo Woman's Christian Univ.)

02-01-0024	17 Sota Asai (Kyoto Univ.)	Wide intervals in lattices of torsion classes	10
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March 17th (Tue)

10:00–11:45

02-01-0019	18 Masahisa Sato (Aichi Univ.)	Some examples of rings and modules relating to Ware's problem	10
02-01-0026	19 Yoshiharu Shibata (Yamaguchi Univ.) Isao Kikumasa (Yamaguchi Univ.) Yosuke Kuratomi (Yamaguchi Univ.)	On dual square full modules	10
02-01-0016	20 Ayako Itaba (Tokyo Univ. of Sci.)	On finite generations over centers of non-commutative projective schemes associated to 3-dimensional quadratic AS-regular algebras	10
02-01-0031	21 Masaki Matsuno (Shizuoka Univ.)	The classification of 3-dimensional quadratic AS-regular algebras whose point schemes are elliptic curves	10
02-01-0030	22 Ji-Wei He (Hangzhou Normal Univ.) Haigang Hu (Shizuoka Univ.)	Hopf dense Galois extensions over a ring	10
02-01-0061	23 Hiroki Matsui (Univ. of Tokyo)	Construction of spectra of triangulated categories and their applications to commutative algebra	10
02-01-0070	24 Ayana Hirano (Kitami Inst. of Tech.) Kazunori Matsuda (Kitami Inst. of Tech.)	Matching numbers and dimension of edge ideals	10
02-01-0023	25 Mitsuhiro Miyazaki (Kyoto Univ. of Edu.) Janet Page (Univ. of Michigan)	On the traces of the canonical modules of the Ehrhart rings of order and chain polytopes	10
02-01-0032	26 Akihiro Higashitani (Osaka Univ.) Hidefumi Ohsugi (Kwansei Gakuin Univ.)	Toric ideals of generalized permutohedra	10
13:00–14:15			
02-01-0042	27 Hidefumi Ohsugi (Kwansei Gakuin Univ.) Akiyoshi Tsuchiya (Univ. of Tokyo)	Nef-partitions arising from unimodular configurations	10
02-01-0039	28 Akiyoshi Tsuchiya (Univ. of Tokyo) Takayuki Hibi (Osaka Univ.)	Initial ideals and their depth	10
02-01-0040	29 Chris McDaniel (Endicott Coll.)	Equivariant coinvariant rings of finite groups	10
02-01-0041	30 Junzo Watanabe (Tokai Univ.)* Chris McDaniel (Endicott Coll.)	A new definition of the principal radical system and an application to Specht ideals of type $(n - k, k)$	10
02-01-0048	31 Kohsuke Shibata (Okayama Univ.) Kohji Yanagawa (Kansai Univ.)	Hilbert series of Cohen–Macaulay Specht ideals	10
02-01-0049	32 Shreedevi Masuti (Chennai Math. Inst.) Kazuho Ozeki (Yamaguchi Univ.) Maria Evelina Rossi (Genova Univ.) Hoang Le Truong (Saarlandes Univ.)	On the structure of the Sally module and the second normal Hilbert coefficient	10

March 18th (Wed)

9:20–12:00

02-01-0028

33 Tomohiro Iwami (Kyushu Inst. of Tech.)^b Semistable extremal neighborhoods rigged by framed-form fans of cusptype singularities 10

02-01-0029

34 Koji Nuida (Univ. of Tokyo) An elementary linear-algebraic proof for group law on elliptic curves 10

02-01-0051

35 Makoto Sakurai (Kaichi Gakuen) Extension and applications of chiral algebra theory 10

02-01-0017

36 Yoshifumi Tsuchimoto (Kochi Univ.) On curves on the non-commutative complex Kähler plane 10

02-01-0004

37 Tetsuya Ando (Chiba Univ.) Theory of PSD cones on semialgebraic varieties 10

02-01-0066

38 Norihiko Minami (Nagoya Inst. of Tech.) On the applicability of the sufficient criterion for a stronger hierarchy of higher uniruledness = lower unirationality via Bott tower 10

02-01-0014

39 Yoshifumi Kato (Meijo Univ.) Curvature matrix of the universal bundle of the Grassmann variety 10

02-01-0018

40 Yoshifumi Kato (Meijo Univ.) An observation on Schubert polynomials 10

02-01-0015

41 Yuki Matsubara (Kobe Univ.) Tamely ramified geometric Langlands correspondence 10

02-01-0020

42 Takeito Shirane (Tokushima Univ.) Torsion divisors of plane curves and Zariski pairs 10

Enrique Artal Bartolo (Univ. Zaragoza)

Shinzo Bannai

(Ibaraki Nat. Coll. of Tech.)

Hiro-o Tokunaga (Tokyo Metro. Univ.)

02-01-0047

43 Kohei Sato (Oyama Nat. Coll. of Tech.) On Ashikaga's continued fractions and crepant resolutions for 3-dimensional Abelian quotient singularities 10

Yusuke Sato (Univ. of Tokyo)

02-01-0037

44 Yuto Yamamoto (IBS-CGP) Periods of tropical Calabi–Yau hypersurfaces 10

02-01-0065

45 Takahiro Nagaoka (Kyoto Univ.) The universal covers of hypertoric varieties and Bogomolov's decomposition 10

02-01-0027

46 Hiroto Akaike (Osaka Univ.)^b Slope inequalities for irregular cyclic covering fibration 10**14:15–14:30 Presentation Ceremony for the 2020 MSJ Algebra Prize****14:40–15:40 Award Lecture for the 2020 MSJ Algebra Prize**

02-02-0001

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

15:50–16:50 Award Lecture for the 2020 MSJ Algebra Prize

02-02-0004

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

March 19th (Thu)

9:20–12:00

02-01-0036

47 Fumitsuna Maruyama Recent progress on Euler–Fermat type theorem on matrix ring 10
Masao Toyoizumi (Toyo Univ.)
Yozo Deguchi

02-01-0044			
48	Kiyoto Yoshino (Tohoku Univ.) Qianqian Yang (Univ. of Sci. Tech. China)	Non 2-integrable lattices of rank 12	10
02-01-0013			
49	Akinari Hoshi (Niigata Univ.) Kazuki Kanai (Niigata Univ.) Aiichi Yamasaki (Kyoto Univ.)	Norm one tori and Hasse norm principle	10
02-01-0022			
50	Akinari Hoshi (Niigata Univ.) Kazuki Kanai (Niigata Univ.) Aiichi Yamasaki (Kyoto Univ.)	Norm one tori and Hasse norm principle, II	10
02-01-0058			
51	Yoshiaki Okumura (Tokyo Tech)	Non-existence of Drinfeld modules with constrained torsions	10
02-01-0033			
52	Iwao Kimura (Univ. of Toyama) Daiki Aoyama (Univ. of Toyama)	On an estimate of the relative class number of cyclotomic function field of prime conductor	10
02-01-0025			
53	Mikihito Hirabayashi (Kanazawa Inst. of Tech.)	A generalization of Jakubec's formula related to the multiplication theorem for Bernoulli polynomials	10
02-01-0062			
54	Yuki Kato (Ube Nat. Coll. of Tech.)	Homotopy invariant K -theory of perfectoidification of regular local rings	10
02-01-0009			
55	Kazuto Ota (Keio Univ.)	Big Heegner points and generalized Heegner cycles	10
02-01-0063			
56	Yuichi Sakai (Kyushu Univ.) Kiyokazu Nagatomo (Osaka Univ.)	Characterization of minimal models by modular linear differential equations of order 4 and their modules	10
02-01-0034			
57	Wataru Takeda (Nagoya Univ.)	Factorial functions represented as norm forms	10
02-01-0057			
58	Kazunari Sugiyama (Chiba Inst. of Tech.)	Prehomogeneous zeta functions and the Katok–Sarnak correspondence	10
02-01-0052			
59	Ryojun Ito (Chiba Univ.)	On special values at integers of L -functions of Jacobi theta products of weight 3	10
02-01-0021			
60	Masatoshi Suzuki (Tokyo Tech)	On a family of integral operators arising from zeta functions. II.	10
14:15–15:15 Talk Invited by Algebra Section			
02-02-0003	Kenichi Namikawa (Kyushu Univ.)	Explicit constructions of automorphic forms and its applications to Iwasawa theory	
15:25–16:50			
02-01-0064			
61	Masahiro Mine (Tokyo Tech)	Moments of L -functions associated with cubic fields	10
02-01-0059			
62	Ade Irma Suriajaya (Kyushu Univ./RIKEN) Shōta Inoue (Nagoya Univ.) Sumaia Saad Eddin (JKU Linz)	An upper bound for Stieltjes constants of L -functions in the extended Selberg class	10
02-01-0060			
63	Shota Inoue (Nagoya Univ.)	On the value distribution of the Riemann zeta-function on the critical line	10
02-01-0003			
64	Saburo Saitoh (Gunma Univ.*/Inst. of Reproducing Kernels) Tsutomu Matsuura (Gunma Univ.) Hiroshi Okumura	Values of the Riemann zeta function at positive integers by means of the division by zero calculus	10

02-01-0038

65 Hiroshi Ogawara (Kumamoto Univ.) On algebraic independence of solutions for systems of algebraic Mahler functional equations 10

02-01-0068

66 Debika Banerjee (IISER) A divisor problem on square free integers 10
Makoto Minamide (Yamaguchi Univ.)
 Yoshio Tanigawa

02-01-0001

67 Shigeru Iitaka (Gakushuin Univ.*) (A,B,C) perfect numbers 10

Geometry

March 16th (Mon)

9:40–11:40

- [03-01-0001](#)
1 Takahiko Yoshida (Meiji Univ.) Adiabatic limits, theta functions, and geometric quantization 15
- [03-01-0003](#)
2 Ken Kuwata (Hokkaido Univ.)
Masao Jinzenji (Hokkaido Univ.) Holomorphic vector field and topological sigma model on \mathbb{P}^1 world sheet 15
- [03-01-0007](#)
3 Natsuo Miyatake (Osaka Univ.)^b A direct proof of Hitchin–Kobayashi type correspondences for abelian vortex equations 15
- [03-01-0010](#)
4 Yasufumi Nitta (Tokyo Univ. of Sci.)
Shunsuke Saito (RIKEN/Kyoto Univ.) A uniform version of the Yau–Tian–Donaldson correspondence for polarized toric manifolds 15
- [03-01-0013](#)
5 Kazuyuki Hasegawa (Kanazawa Univ.)
Vicente Cortés (University of Hamburg) A construction of a hypercomplex manifold from a quaternionic manifold —the quaternionic/hypercomplex-correspondence— 15
- [03-01-0023](#)
6 Yoshinori Hashimoto (Tokyo Tech)
Julien Keller (Aix-Marseille Univ.) Kobayashi–Hitchin correspondence and the Quot-scheme limit of Fubini–Study metrics 15
- [03-01-0026](#)
7 Takahiro Aoi (Osaka Univ.) Complete scalar-flat Kähler metrics on affine algebraic manifolds 15
- 14:20–15:45**
- [03-01-0012](#)
8 Tomoya Nakamura (Waseda Univ.) Dirac pairs on Jacobi bialgebroids 15
- [03-01-0020](#)
9 Ryuma Orita (Tokyo Metro. Univ.) Rigid fibers of spinning tops 15
- [03-01-0027](#)
10 Yuuki Sasaki (Univ. of Tsukuba) Connectedness and homogeneity of antipodal sets 15
- [03-01-0028](#)
11 Mao Okada (Univ. of Tokyo) Local rigidity of certain actions of solvable groups on the boundaries of rank-one symmetric spaces 15
- [03-01-0034](#)
12 Takashi Sakai (Tokyo Metro. Univ.)
Peter Quast (Univ. of Augsburg) Natural Γ -symmetric structures on R -spaces 15

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

- [03-02-0001](#)
Hikaru Yamamoto (Tokyo Univ. of Sci.) Special Lagrangian submanifolds, mean curvature flows and their mirror

March 17th (Tue)

9:40–11:50

- [03-01-0009](#)
13 Yufeng Lu (Osaka Univ.)
Ettore Minguzzi (Univ. Stud. Firenze)
Shin-ichi Ohta (Osaka Univ./RIKEN) Singularity theorems on Lorentz–Finsler manifolds 10
- [03-01-0014](#)
14 Atsufumi Honda (Yokohama Nat. Univ.)
Kosuke Naokawa (Hiroshima Inst. of Tech.)
Kentarō Saji (Kobe Univ.)
Masaaki Umehara (Tokyo Tech)
Kotaro Yamada (Tokyo Tech) Duality on generalized cuspidal edges preserving singular set images and first fundamental forms 15

03-01-0018	15	Yoshito Ishiki (Univ. of Tsukuba)	On the Assouad dimension and convergence of metric spaces	15
03-01-0019	16	Yoshito Ishiki (Univ. of Tsukuba)	A characterization of metric subspaces of full Assouad dimension	15
03-01-0024	17	Nobuhiro Innami (Niigata Univ.)	The azimuthal equidistant projection for a Finsler manifold	15
03-01-0025	18	Shin Nayatani (Nagoya Univ.) Takumi Gomyou (Nagoya Univ.) Toshimasa Kobayashi (Setsunan Univ.) Takefumi Kondo (Kagoshima Univ.)	Optimal embedding and spectral gap of a finite graph	15
03-01-0029	19	Naoto Satoh (Hokkaido Univ.) Hitoshi Furuhata (Hokkaido Univ.) Izumi Hasegawa (Hokkaido Univ. of Edu.*)	Statistical sectional curvature and warped product statistical manifold	15
03-01-0031	20	Ryunosuke Ozawa (Tohoku Univ.) Yohei Sakurai (Tohoku Univ.) Taiki Yamada (Res. Inst. for Humanity and Nature)	Geometric and analytic properties of directed graphs under lower Ricci curvature bound	15

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

03-02-0002		Ulrich Pinkall (TU Berlin)	Discretizing fluids into filaments and sheets	
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March 18th (Wed)

9:40–11:35

03-01-0005	21	Ayato Mitsuishi (Fukuoka Univ.)	Certain mini-max values of the p -energy and packing radii	15
03-01-0006	22	Cong Hung Mai (Kyoto Univ.) Shin-ichi Ohta (Osaka Univ./RIKEN)	Quantitative estimates for the Bakry–Ledoux isoperimetric inequality	10
03-01-0008	23	Shintaro Akamine (Nagoya Univ.) Atsufumi Honda (Yokohama Nat. Univ.) Masaaki Umehara (Tokyo Tech) Kotaro Yamada (Tokyo Tech)	Bernstein-type theorem for zero mean curvature hypersurfaces admitting lightlike points	15
03-01-0011	24	Doman Takata (Univ. of Tokyo)	Towards an infinite-dimensional Atiyah–Singer index theorem	15
03-01-0021	25	Jun O’Hara (Chiba Univ.)	Generalization of Willmore energy as a residue	15
03-01-0022	26	Asuka Takatsu (Tokyo Metro. Univ.) ^b Kazuhiro Ishige (Univ. of Tokyo) Paolo Salani (Univ. Firenze)	Elliptic and parabolic boundary value problems on rotationally symmetric domains	15
03-01-0030	27	Dounnu Sasaki (Waseda Univ.)	Denseness property of geodesic currents on a cusped hyperbolic surface	15

14:20–15:40

03-01-0004	28	Atsushi Fujioka (Kansai Univ.) Hitoshi Furuhata (Hokkaido Univ.)	Centroaffine surfaces of cohomogeneity one	15
03-01-0015	29	Masashi Yasumoto (Osaka City Univ.)	Discrete Weierstrass-type representations	15
03-01-0016	30	Masahiro Morimoto (Osaka City Univ.)	Austere and arid properties for PF submanifolds in Hilbert spaces	15

[03-01-0017](#)
31 Yuichiro Sato (Tokyo Metro. Univ.) Totally umbilical submanifolds in pseudo-Riemannian space form 15

[03-01-0033](#)
32 Kazuhiro Okumura (Asahikawa Nat. Coll. of Tech.) The curvature tensor of ruled real hypersurfaces in a nonflat complex space form 10

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

[03-02-0003](#)
Atsushi Kanazawa (Kyoto Univ.) Kähler moduli spaces and stability conditions of triangulated categories

Complex Analysis

March 16th (Mon)

9:30–11:50

04-01-0001

- 1 Saburo Saitoh (Gunma Univ./Inst. of Reproducing Kernels) Okumura's disc series can beyond the crucial point of Däumler–Puha's horn torus models for the Riemann sphere 15

04-01-0018

- 2 Toshiyuki Sugawa (Tohoku Univ.) Geometric properties of the nonlinear resolvent for a continuous semi-group of holomorphic self-maps of the unit disk 15
 Mark Elin (ORT Braude Coll.)
 David Shoikhet (Holon Inst. of Tech.)

04-01-0019

- 3 Hideaki Izumi (Chiba Inst. of Tech.) Dimensioned number solutions to iterative functional equations 15

04-01-0012

- 4 Akira Ushijima (Kanazawa Univ.) Existence of exceptional points for cofinite Fuchsian groups 15
 Toshihiro Nakanishi (Shimane Univ.)

04-01-0017

- 5 Takayuki Watanabe (Kyoto Univ.) Dichotomy of Markov random dynamical systems of rational maps ... 15
 Hiroki Sumi (Kyoto Univ.)

04-01-0021

- 6 Masashi Kisaka (Kyoto Univ.) Fatou–Shishikura inequality for transcendental entire functions in class \mathcal{S} 15

04-01-0010

- 7 Joe Kamimoto (Kyushu Univ.) On the maximal region to which local zeta functions can be meromorphically extended 15
 Toshihiro Nose (Fukuoka Inst. of Tech.)

04-01-0016

- 8 Toshihiro Nose (Fukuoka Inst. of Tech.) On non-polar singularities of local zeta functions 15
 Joe Kamimoto (Kyushu Univ.)

14:15–15:20

04-01-0006

- 9 Takanori Ayano (Osaka City Univ.) Series expansion of two-dimensional sigma function based on the heat equations 15
 Victor M. Buchstaber (Steklov Inst. of Math.)

04-01-0009

- 10 Atsushi Hayashimoto Automorphism group and isometry group of Hua domains 15
 (Nagano Nat. Coll. of Tech.)

04-01-0013

- 11 Hidetaka Hamada Distortion theorems, Lipschitz continuity and their applications for Bloch type mappings on bounded symmetric domains in \mathbb{C}^n 15
 (Kyushu Sangyo Univ.)

04-01-0014

- 12 Ian Graham (Univ. of Toronto) Loewner chains, Bloch mappings and Pfaltzgraff–Suffridge extension operators on bounded symmetric domains 15
 Hidetaka Hamada (Kyushu Sangyo Univ.)
 Gabriela Kohr (Babeş-Bolyai Univ.)

15:35–16:35 Talk Invited by Complex Analysis Section

04-02-0003

- Yohei Komori (Waseda Univ.) Growth of hyperbolic Coxeter groups

16:50–17:50 Award Lecture for the 2019 MSJ Analysis Prize

04-02-0001

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

March 17th (Tue)

9:15–11:45

04-01-0005

- 13 Shinichi Tajima (Niigata Univ.*)
Takafumi Shibuta
(Kyushu Sangyo Univ.)
Katsusuke Nabeshima
(Tokushima Univ.)
- A computation method of logarithmic vector fields associated to isolated complete intersection singularities 15

04-01-0004

- 14 Tomoko Shinohara
(Tokyo Metro. Coll. of Ind. Tech.)
- Local stable set of an indeterminate point of rational mappings of two complex variables 15

04-01-0002

- 15 Yukitaka Abe (Univ. of Toyama)
- Isogenies between commutative complex Lie groups 10

04-01-0003

- 16 Yukitaka Abe (Univ. of Toyama)
- Meromorphic function fields closed by partial derivatives 15

04-01-0008

- 17 Takayuki Koike (Osaka City Univ.)
- Hermitian metrics on the anti-canonical bundle of the blow-up of the projective plane at nine points 15

04-01-0020

- 18 Masanori Adachi (Shizuoka Univ.)
Jihun Yum (Pusan Nat. Univ.)
- The Diederich–Fornæss and Steinness indices in complex manifolds ... 15

04-01-0007

- 19 Takahiro Inayama (Univ. of Tokyo)
- Pseudonorms on direct images of pluricanonical bundles 15

04-01-0011

- 20 Genki Hosono (Tohoku Univ.)
- A simplified proof of the optimal L^2 extension theorem and its application 15

04-01-0015

- 21 Takeo Ohsawa (Nagoya Univ.)^b
- Application of the L^2 method to the Levi problem on complex manifolds 15

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

04-02-0002

- Shin-ichi Matsumura (Tohoku Univ.)^b
- On structure theorems for projective manifolds with certain non-negative curvature

Functional Equations

March 16th (Mon)

9:00–12:00

- 05-01-0045
1 Hiroto Inoue (Kyushu Univ.) The exponential matrix solution and power series solution of the matrix-valued Bratu equation 10
- 05-01-0025
2 Daichi Komori (Hokkaido Univ.) The construction of the morphism of sheaves from pseudodifferential operators to their symbols via Čech–Dolbeault cohomology 10
- 05-01-0022
3 Masatoshi Suzuki (Tokyo Tech) On a system of partial differential equations and entire functions of Hermite–Biehler class 10
- 05-01-0020
4 Hidetoshi Tahara (Sophia Univ.) Uniqueness of the solution of nonlinear singular first order partial differential equations 10
- 05-01-0048
5 Yukihide Tadano (Univ. of Tokyo)
Shu Nakamura (Gakushuin Univ.) On a continuum limit of discrete Schrödinger operators on square lattices 10
- 05-01-0037
6 Kenichi Ito (Univ. of Tokyo)
Arne Jensen (Aalborg Univ.) Hypergeometric expression for resolvent of the discrete Laplacian in low dimension 10
- 05-01-0077
7 Kanam Park (Kobe Univ.) A certain generalization of q -Painlevé VI system and its symmetry ... 10
- 05-01-0062
8 Toshinori Takahashi (Kindai Univ.) On the WKB theoretic transformation to the boosted Airy equation 10
- 05-01-0051
9 Takashi Aoki (Kindai Univ.)
Shofu Uchida (Kindai Univ.) Voros coefficients at the origin and at the infinity of the generalized hypergeometric differential equation with a large parameter 10
- 05-01-0005
10 Hideshi Yamane (Kwansei Gakuin Univ.) Analytic global-in-time solutions to the Cauchy problem for the μ -Camassa–Holm equation 10
- 05-01-0066
11 Kazuki Ishibashi (Hiroshima Nat. Coll. of Maritime Tech.)
Fentao Wu (Northeast Normal Univ.)
Lin She Moore-type nonoscillation theorems for half-linear difference equations 10
- 05-01-0028
12 Tomoyuki Tanigawa (Osaka Pref. Univ.) A study of nonoscillatory solutions of half-linear differential equations by Riccati equations 10
- 05-01-0003
13 Tetsutaro Shibata (Hiroshima Univ.)
Keiichi Kato (Tokyo Univ. of Sci.) Simple proof of stationary phase method and application to oscillatory bifurcation problems 10
- 05-01-0011
14 Yutaka Kamimura (Tokyo Univ. of Marine Sci. and Tech.) Energy dependent reflectionless inverse theory and method 10

14:15–16:15

- 05-01-0080
15 Shingo Takeuchi (Shibaura Inst. of Tech.)
Kohtaro Watanabe (Nat. Defense Acad. of Japan) Lyapunov-type inequalities for a Sturm–Liouville problem of the one-dimensional p -Laplacian 10
- 05-01-0036
16 Tatsuki Mori (Musashino Univ.)
Kousuke Kuto (Waseda Univ.)
Yasuhito Miyamoto (Univ. of Tokyo)
Tohru tsujikawa (Univ. of Miyazaki)
Shoji Yotsutani (Ryukoku Univ.*) Parametric representation of a sheet constructed by all solution to a nonlocal Allen–Cahn equation 10

05-01-0033	17 <u>Kenichiro Umezu</u> (Ibaraki Univ.) Uriel Kaufmann (Univ. Nacional de Córdoba) Humberto Ramos Quoirin (Univ. de Santiago de Chile)	Global exact multiplicity of positive solutions for an indefinite sublinear Robin problem	10
05-01-0050	18 <u>Yohei Sato</u> (Saitama Univ.) Xiaojun Chang (Northeast Normal Univ.)	Localized solutions of nonlinear Schrödinger systems with critical frequency for infinite attractive case	10
05-01-0046	19 <u>Lorenzo Cavallina</u> (Tohoku Univ.) Antoine Henrot (Inst. Elie Cartan de Lorraine/Univ. de Lorraine) Shigeru Sakaguchi (Tohoku Univ.)	On the two-phase isoperimetric problem	10
05-01-0024	20 <u>Shigeru Sakaguchi</u> (Tohoku Univ.) Lorenzo Cavallina (Tohoku Univ.) Seiichi Udagawa (Nihon Univ.)	A characterization of the interface with constant temperature in two-phase heat conductors	10
05-01-0052	21 <u>Yuki Tsukamoto</u> (Tokyo Tech)	Existence of a prescribed anisotropic mean curvature problem	10
05-01-0067	22 <u>Kensuke Yoshizawa</u> (Tohoku Univ.) ^b	Existence and non-existence of elastic graphs with the symmetric cone obstacle	10
16:30–17:30 Award Lecture for the 2019 MSJ Analysis Prize			
05-02-0004	<u>Hidetaka Sakai</u> (Univ. of Tokyo)	The world of the Painlevé equations	

March 17th (Tue)

9:00–12:00

05-01-0076	23 <u>Naoki Hamamoto</u> (Osaka City Univ.)	Sharp Rellich inequality for vector-valued functions under the solenoidal condition	10
05-01-0049	24 <u>Megumi Sano</u> (Hiroshima Univ.)	Minimization problem associated with an improved Hardy–Sobolev type inequality	10
05-01-0055	25 <u>Takeshi Suguro</u> (Tohoku Univ.) ^b	Shannon’s inequality for a generalized entropy and an application to the uncertainty principle	10
05-01-0014	26 <u>Shoya Kawakami</u> (Saitama Univ.) <u>Takeyuki Nagasawa</u> (Saitama Univ.)	Estimates on variational formulae of O’Hara’s energies	10
05-01-0031	27 <u>Aya Ishizeki</u> (Chiba Univ.) <u>Takeyuki Nagasawa</u> (Saitama Univ.)	Upper and lower bounds and modulus of continuity of decomposed Möbius energies	10
05-01-0032	28 <u>Takeyuki Nagasawa</u> (Saitama Univ.) <u>Kohei Nakamura</u> (Saitama Univ.)	Asymptotic analysis for non-local curvature flows for plane curves with general rotation number	10
05-01-0058	29 <u>Ken Furukawa</u> (Univ. of Tokyo) <u>Naoto Kajiwara</u> (Tokyo Univ. of Sci.)	On the solvability of higher-order elliptic equations	10
05-01-0027	30 <u>Hirotsada Honda</u> (Toyo Univ.)	Mathematical analysis on a target detection model	10
05-01-0015	31 <u>Junpei Inoue</u> (Univ. of Electro-Comm.) <u>Kousuke Kuto</u> (Waseda Univ.)	On the optimal distribution and the existence of an L^1 -unbounded sequence of steady states for the diffusive logistic equation	10

- 05-01-0034
32 Masahiko Shimojyou (Okayama Univ. of Sci.)
Jong-Shenq Guo (Tamkang Univ.)
Yu-Shuo Chen (Tamkang Univ.) Spreading speed of a singular prey-predator type reaction-diffusion system 10
- 05-01-0035
33 Masahiko Shimojyou (Okayama Univ. of Sci.)
Jong-Shenq Guo (Tamkang Univ.)
Yu-Shuo Chen (Tamkang Univ.) Traveling wave solution to a singular prey-predator reaction diffusion system 10
- 05-01-0057
34 Tomoyuki Oka (Tohoku Univ.)
Goro Akagi (Tohoku Univ.) Space-time homogenization for the fast diffusion equation 10
- 05-01-0043
35 Kenta Nakamura (Tohoku Univ.)
Masashi Misawa (Kumamoto Univ.)
Tuomo Kuusi (Univ. of Helsinki) Global existence for the p -Sobolev flow 10
- 05-01-0001
36 Mario Fuest (Paderborn Univ.)
Johannes Lankeit (Paderborn Univ.)
Masaaki Mizukami (Tokyo Univ. of Sci.) Asymptotic behavior in a chemotaxis-consumption model with realistic boundary conditions for the oxygen 10
- 05-01-0041
37 Takashi Suzuki (Osaka Univ.) A parabolic concavity maximum principle 5

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

- 05-02-0002
Sohei Ashida (Gakushuin Univ.) Accurate lower bounds for eigenvalues of electronic Hamiltonians

March 18th (Wed)

9:00–12:00

- 05-01-0029
38 Toshikazu Kuniya (Kobe Univ.) Threshold theorem for an SIR epidemic model with diffusion under the different boundary conditions 10
- 05-01-0063
39 Daesu Jeong (Nagoya Univ.) The role of forward self-similar solutions in the Cauchy problem for semi-linear heat equations with exponential nonlinearity 10
- 05-01-0068
40 Kotaro Hisa (Tohoku Univ.)
Kazuhiro Ishige (Univ. of Tokyo)
Jin Takahashi (Tokyo Tech) Existence of solutions for an inhomogeneous fractional semilinear heat equation 10
- 05-01-0075
41 Md Rabiul Haque (Tohoku Univ.)^b
Norisuke Ioku (Tohoku Univ.)
Takayoshi Ogawa (Tohoku Univ.)
Ryuichi Sato (Tohoku Univ.) Critical existence to a convection-diffusion equation in a uniformly local lebesgue space 10
- 05-01-0030
42 Sachiko Ishida (Chiba Univ.)
Tomomi Yokota (Tokyo Univ. of Sci.) Weak stabilization in Keller–Segel systems with degenerate diffusion 10
- 05-01-0054
43 Mikihiro Fujii (Kyushu Univ.) Global solutions to the dissipative quasi-geostrophic equation with dispersive forcing 10
- 05-01-0026
44 Masaki Kurokiba (Muroran Inst. of Tech.)^b
Takayoshi Ogawa (Tohoku Univ./Tohoku Univ.) Singular limit problem for the Keller–Segel system and drift-diffusion system 10

- 05-01-0079
45 Shuji Yoshikawa (Oita Univ.) Error estimates of structure-preserving discrete approximations for the Cahn–Hilliard equation in two space dimension 10
- 05-01-0002
46 Takashi Furuya (Nagoya Univ.) Direct and inverse scattering problems for the local perturbation of an open periodic waveguide in the half plane 10
- 05-01-0012
47 Kunio Hidano (Mie Univ.)
Kazuyoshi Yokoyama
(Hokkaido Univ. of Sci.) Global existence for null-form wave equations with data in a Sobolev space of lower regularity and weight 10
- 05-01-0044
48 Tadahiro Oh (Univ. of Edinburgh)
Mamoru Okamoto (Shinshu Univ.) On the well-posedness for the quadratic stochastic nonlinear wave equation with a rough noise in two dimensions 10
- 05-01-0004
49 Haruya Mizutani (Osaka Univ.)
Xiaohua Yao
(Central China Normal Univ.) Resolvent and Strichartz estimates for fractional Schrödinger operators with Hardy potentials 10
- 05-01-0072
50 Tomoyuki Tanaka ^b
(Nagoya Univ./Chuo Univ./RIKEN/Keio Univ.)
Masahiro Ikeda (RIKEN/Keio Univ.)
Kyouhei Wakasa
(Kushiro Nat. Coll. of Tech.) Global well-posedness for the wave equation with a time-dependent scale invariant damping and a cubic convolution 10
- 05-01-0019
51 Yoshiyuki Kagei (Tokyo Tech)
Hiroshi Takeda (Fukuoka Inst. of Tech.) Large time behavior of global solutions to nonlinear elastic wave equations with strong damping term 10
- 14:15–16:15**
- 05-01-0071
52 Isao Kato (Kyoto Univ.)
Shinya Kinoshita (Univ. Bielefeld) On the 3D Zakharov system with radial initial data 10
- 05-01-0061
53 Ikkei Shimizu (Kyoto Univ.) Local well-posedness for Schrödinger maps with helicity terms 10
- 05-01-0017
54 Chunhua Li (Yanbian Univ.)
Yoshinori Nishii (Osaka Univ.)
Yuji Sagawa
Hideaki Sunagawa (Osaka Univ.) Large time asymptotics for a cubic nonlinear Schrödinger system in one space dimension 10
- 05-01-0056
55 Koichi Komada
(Tohoku Univ./Kyushu Univ.) Existence of blow-up solutions to nonlinear Schrödinger equations with anisotropic fourth-order dispersion 10
- 05-01-0073
56 Takuya Sato (Tohoku Univ.)^b
Takayoshi Ogawa (Tohoku Univ.) L^2 -decay for the one dimensional dissipative nonlinear Schrödinger equation in a critical exponent 10
- 05-01-0059
57 Toshiyuki Suzuki (Kanagawa Univ.) Nonlinear Schrödinger equations with an inverse-square potential and a repulsive harmonic oscillator 10
- 05-01-0069
58 Masaru Hamano (Saitama Univ.)
Masahiro Ikeda (RIKEN/Keio Univ.) For a stationary problem of the nonlinear Schrödinger equation with a potential term 10
- 05-01-0070
59 Noriyoshi Fukaya (Tokyo Univ. of Sci.)
Masayuki Hayashi (Kyoto Univ.) Instability of algebraic standing waves for nonlinear Schrödinger equations with double power nonlinearities 10
- 16:30–17:30 Talk Invited by Functional Equations Section**
- 05-02-0003
Kousuke Kuto (Waseda Univ.) Cross-diffusion limit in the stationary SKT model

March 19th (Thu)

9:00–12:00

05-01-0047

- 60 Shota Sakamoto (Tohoku Univ.) Solutions to initial and initial-boundary value problems of the non-cutoff Boltzmann equation near an equilibrium 10
 Renjun Duan
 (Chinese Univ. of Hong Kong)
 Shuangqian Liu
 (Central China Normal Univ./Jinan Univ.)
 Robert M. Strain (Univ. Pennsylvania)

05-01-0021

- 61 Hirokazu Saito (Tokyo Univ. of Sci.) On elliptic problems associated with two-phase incompressible flows in unbounded domains 10
 Xin Zhang (Waseda Univ.)

05-01-0078

- 62 Zhongyang Gu (Univ. of Tokyo) Continuous alignment of vorticity direction prevents the blow-up of the Navier–Stokes flow under the no-slip boundary condition 10
 Yoshikazu Giga (Univ. of Tokyo)
 Pen-Yuan Hsu (Univ. of Tokyo)

05-01-0042

- 63 Kenji Nakamura (Tsukuba Univ.) Linearized problem of the hyperbolic type Navier–Stokes equations in the three dimensional half-spaces 10
 Takayuki Kobayashi (Osaka Univ.)
 Takayuki Kubo (Ochanomizu Univ.)

05-01-0060

- 64 Tomoki Takahashi (Nagoya Univ.) Attainability of a stationary Navier–Stokes flow around a rigid body rotating from rest 10

05-01-0016

- 65 Akira Okada (Kyoto Univ.) Necessary and sufficient condition for the local existence of solution in the Serrin class of the Navier–Stokes equations 10

05-01-0074

- 66 Takahiro Okabe (Osaka Univ.) Annihilation of slow-decay factors of the Navier–Stokes flow by the external force 10
 Lorenzo Brandolese (Univ. Lyon 1)

05-01-0013

- 67 Hiroyuki Tsurumi (Waseda Univ.) The two-dimensional stationary Navier–Stokes equations in toroidal Besov spaces 10

05-01-0018

- 68 Kazuyuki Tsuda (Osaka Univ.) The time periodic problem of the Navier–Stokes equations in a bounded domain with moving boundary 10
 Reinhard Farwig (TU Darmstadt)
 Hideo Kozono (Waseda Univ.)
 David Wegmann (TU Darmstadt)

05-01-0008

- 69 Yoshihiro Shibata (Waseda Univ.) On the second Helmholtz decomposition in an exterior domain 10

05-01-0006

- 70 Yoshihiro Shibata (Waseda Univ.) On the isothermal compressible multi-component mixture flow: the local existence and maximal L_p - L_q regularity of solutions 10

05-01-0007

- 71 Yoshihiro Shibata (Waseda Univ.) On the maximal L_p - L_q regularity of solutions to a general linear parabolic system 10

05-01-0009

- 72 Yoshihiro Shibata (Waseda Univ.) On the \mathcal{R} -solver and periodic solutions 10

05-01-0010

- 73 Yoshihiro Shibata (Waseda Univ.) On the periodic solutions for free boundary problem of the Navier–Stokes equations 10

14:15–16:15

05-01-0023

- 74 Senjo Shimizu (Kyoto Univ.) Maximal L^1 -regularity for the parabolic initial-boundary value problem in the half-space 10
 Takayoshi Ogawa (Tohoku Univ.)

05-01-0065

- 75 Tsukasa Iwabuchi (Tohoku Univ.) Forward self-similar solutions for compressible Navier–Stokes equations 10
 Pierre Germain (New York Univ.)

05-01-0081

- 76 Ryosuke Nakasato (Tohoku Univ.) Global well-posedness and time-decay estimates for the compressible
Shuichi Kawashima (Waseda Univ.) Hall-magnetohydrodynamic system 10
Takayoshi Ogawa (Tohoku Univ.)

05-01-0053

- 77 Kai Koike (Keio Univ./RIKEN) Long-time behavior of a pendulum in a 1D viscous compressible fluid
 10

05-01-0064

- 78 Keiichi Watanabe (Waseda Univ.) Global solvability of the Navier–Stokes–Korteweg equations with a non-
 decreasing pressure in L^p -framework 10

05-01-0038

- 79 Masahiro Suzuki (Nagoya Inst. of Tech.) The Morrow model of gas discharge I: Stability analysis 10
Atusi Tani (Keio Univ.*)

05-01-0039

- 80 Masahiro Suzuki (Nagoya Inst. of Tech.) The Morrow model of gas discharge II: Global bifurcation 10
Walter Strauss (Brown Univ.)

05-01-0040

- 81 Masahiro Suzuki (Nagoya Inst. of Tech.) Justification of the Boltzmann relation 10
Emmanuel Grenier (ENS de Lyon)
Yan Guo (Brown Univ.)
Benoit Pausader (Brown Univ.)

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

05-02-0001

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

Real Analysis

March 18th (Wed)

9:00–11:50

06-01-0021

- 1 Toshiharu Kawasaki (Nihon Univ.) The split feasibility problem with some projections in Banach spaces
 Hiroko Manaka (Nihon Univ.) 15

06-01-0026

- 2 Yukino Tomizawa Uniform convexity in distance spaces 15
 (Niigata Inst. of Tech.)

06-01-0012

- 3 Hiroyasu Mizuguchi (Kansai Univ.) A certain geometric constant and von Neumann–Jordan constant in
 Radon planes 15

06-01-0010

- 4 Kichi-Suke Saito (Niigata Univ.) A note on the structure of Radon spaces 15
 Naoto Komuro
 (Hokkaido Univ. of Edu.)
 Ryotaro Tanaka (Tokyo Univ. of Sci.)

06-01-0024

- 5 Toshiharu Kawasaki Integrable functions for extended integration 15
 (Nihon Univ./Tamagawa Univ.)

06-01-0031

- 6 Ryoji Fukuda (Oita Univ.) Two non-discretizations for k -additivity of a monotone measure 15
 Aoi Honda (Kyushu Inst. of Tech.)
 Yoshiaki Okazaki
 (Fuzzy Logic Systems Inst.)

06-01-0005

- 7 Shohei Nakamura (Tokyo Metro. Univ.) The tomography approach to the Fourier restriction theory 15
 Jonathan Bennett
 (Univ. of Birmingham)

06-01-0001

- 8 Takeshi Iida Weighted norm inequalities on Morrey spaces for the Orlicz-fractional
 maximal operators 15
 (Fukushima Nat. Coll. of Tech.)

06-01-0009

- 9 Ryota Kawasumi Generalized fractional integral operators on weak Orlicz spaces 15
 Eiichi Nakai (Ibaraki Univ.)

06-01-0020

- 10 Minglei Shi (Ibaraki Univ.) Commutators of Calderón–Zygmund and generalized fractional integral
 operators with functions in generalized Campanato spaces on Orlicz–
 Morrey spaces 15
 Ryutaro Arai (Ibaraki Univ.)
 Eiichi Nakai (Ibaraki Univ.)

14:15–15:55

06-01-0027

- 11 Tsukasa Iwabuchi (Tohoku Univ.) Bilinear estimates in Sobolev spaces associated with Dirichlet and Neu-
 mann Laplacian 15

06-01-0025

- 12 Ryoichi Kunisada (Waseda Univ.) On a continuous version of Banach limits 15

06-01-0028

- 13 Toru Nogayama (Tokyo Metro. Univ.) Local Muckenhoupt class for variable exponents 15
 Yoshihiro Sawano (Tokyo Metro. Univ.)

06-01-0017

- 14 Yoshihiro Sawano (Tokyo Metro. Univ.)^b Cantor functions associated with generalized expansions 15

06-01-0018

- 15 Yoshihiro Sawano (Tokyo Metro. Univ.)^b Sparse non-smooth atomic decomposition of Morrey spaces 15

06-01-0019

- 16 Yoshihiro Sawano (Tokyo Metro. Univ.)^b Modified Hardy–Littlewood maximal operator and modified fractional
 integral operator on metric measure spaces 15
 Tetsu Shimomura (Hiroshima Univ.)

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

- [06-02-0002](#)
 Gaku Sadasue (Osaka Kyoiku Univ.) Some martingale spaces and fractional integrals for martingale

March 19th (Thu)

9:00–12:00

- [06-01-0014](#)
 17 Masaaki Mizukami (Tokyo Univ. of Sci.) Uniform-in-time convergence of solutions for a chemotaxis-competition model to those for the Lotka–Volterra competition model 15
- [06-01-0002](#)
 18 Pierluigi Colli (Univ. of Pavia) Existence for a phase separation system deduced from the entropy balance 15
 Shunsuke Kurima (Tokyo Univ. of Sci.)
- [06-01-0004](#)
 19 Shunsuke Kurima (Tokyo Univ. of Sci.) A Cahn–Hilliard approach to a nonlinear diffusion chemotaxis system 15
- [06-01-0029](#)
 20 Keiichiro Kagawa (Waseda Univ.) Asymptotic limits of the time-periodic problem for the viscous Cahn–Hilliard equation 10
 Mitsuharu Ôtani (Waseda Univ.)
- [06-01-0003](#)
 21 Chiharu Kosugi (Japan Women’s Univ.) Existence of weak solutions to initial boundary value problems describing shrinking motion of elastic materials 15
 Toyohiko Aiki (Japan Women’s Univ.)
- [06-01-0030](#)
 22 Takahiro Kishida (Meijo Univ.) FEM analysis for mathematical model of adsorption phenomena in 1D domain 15
 Yusuke Murase (Meijo Univ.)
- [06-01-0022](#)
 23 Kazuki Shimura (Oita Univ.) Structure-preserving finite difference schemes for a Cahn–Hilliard system coupled with elasticity 15
 Shuji Yosikawa (Oita Univ.)
- [06-01-0007](#)
 24 Makoto Okumura (Osaka Univ.) A structure-preserving scheme for the Cahn–Hilliard equation with dynamic boundary conditions which has the total mass conservation 15
- [06-01-0032](#)
 25 Yoshimasa Sasaki (Niigata Univ.) Existence and uniqueness of solutions to conservation laws with spatially discontinuous flux 15
 Ohwa Hiroki (Niigata Univ.)
- [06-01-0023](#)
 26 Hiroshi Watanabe (Oita Univ.) Construction of traveling waves and asymptotic behavior of entropy solutions to scalar parabolic-hyperbolic conservation laws 15
- [06-01-0033](#)
 27 Yutaka Tsuzuki (Hiroshima Shudo Univ.) Existence for Initial-boundary value problems for Vlasov–Poisson equations with angle error in magnetic field 15
- 14:15–15:55**
- [06-01-0015](#)
 28 Noriaki Yamazaki (Kanagawa Univ.) Control of parameter-dependent evolution equations governed by time-dependent subdifferentials 15
 Nobuyuki Kenmochi (Chiba Univ.*)
 Ken Shirakawa (Chiba Univ.)
- [06-01-0013](#)
 29 Shodai Kubota (Chiba Univ.) Optimal control problem for multidimensional semi-discrete system of Kobayashi–Warren–Carter type 15
 Ken Shirakawa (Chiba Univ.)
- [06-01-0011](#)
 30 Ken Shirakawa (Chiba Univ.) Sufficient condition for the existence of one-dimensional crystalline solution of the Kobayashi–Warren–Carter type system 15
 Hiroshi Watanabe (Oita Univ.)
- [06-01-0016](#)
 31 Kota Kumazaki (Nagasaki Univ.) A one-dimensional free boundary problem related to ice lenses formation 15
- [06-01-0008](#)
 32 Takeshi Fukao (Kyoto Univ. of Edu.) Vanishing diffusion in a dynamic boundary condition for the Cahn–Hilliard equation 15
 Pierluigi Colli (Pavia Univ.)
- [06-01-0006](#)
 33 Akio Ito Approach from the quasi-variational structure to tumor invasion with non-smooth degenerate diffusion 15

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

06-02-0001

Keisuke Takasao

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

Functional Analysis

March 16th (Mon)

10:00–11:45

07-01-0022

- 1 Amane Kiyose (Kobe Univ.) On the Mourre estimates for Floquet Hamiltonians 15
 Tadayoshi Adachi (Kyoto Univ.)

07-01-0017

- 2 Daisuke Kawagoe (Kyoto Univ.) Surface Riesz transforms and spectral property of the elastic Neumann–Poincaré operator on less smooth domains in three dimensions 15
 Hyeonbae Kang (Inha Univ.)

07-01-0018

- 3 Daisuke Kawagoe (Kyoto Univ.) The essential spectrum of the elastic Neumann–Poincaré operator on a planar domain with a corner 15
 Eric Bonnetier (Univ. Grenoble-Alpes)
 Charles Dapogny (Univ. Grenoble-Alpes)
 Hyeonbae Kang (Inha Univ.)

07-01-0015

- 4 Hiroshi Inoue (Daiichi Univ. of Pharm.) Quantum dynamics based on non-self-adjoint hamiltonians 15

07-01-0009

- 5 Yoritaka Iwata (Kansai Univ.) Abstract Miura transform based on the logarithmic representation of operators 15

07-01-0001

- 6 Shuji Watanabe (Gunma Univ.) An operator-theoretical treatment of the specific heat of a superconductor in the BCS-Bogoliubov model of superconductivity 15

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

07-02-0001

- Fumio Hiroshima (Kyushu Univ.) Renormalization theory and non-perturbative analysis of ground states by functional integrations

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

07-02-0003

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

March 17th (Tue)

10:30–11:45

07-01-0020

- 7 Koei Kawamura (Kyoto Univ.)^b Decomposition of spherical representations and an addition theorem for multivariate hypergeometric polynomials 15

07-01-0010

- 8 Koichi Arashi (Nagoya Univ.) Holomorphic multiplier representations for bounded homogeneous domains 15

07-01-0004

- 9 Taito Tauchi (Univ. of Tokyo) A generalization of the uniformly bounded multiplicity theorem 15

07-01-0016

- 10 Toshihisa Kubo (Ryukoku Univ.) The K -type formulas for Kable's differential operators of type A_3 and Bent Ørsted (Aarhus Univ.) Heun polynomials 15

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

07-02-0004

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

March 18th (Wed)

9:45–12:00

07-01-0021

- 11 Hiroshi Isa (Maebashi Inst. of Tech.) The n -th Petz–Bregman divergence and the n -th residual relative operator entropy 15
 Eizaburo Kamei
 Hiroaki Tohyama
 (Maebashi Inst. of Tech.)
 Masayuki Watanabe
 (Maebashi Inst. of Tech.)

07-01-0008

- 12 Masatoshi Ito (Maebashi Inst. of Tech.) Furuta type inequalities related to Ando–Hiai inequality with negative powers 10
 Eizaburo Kamei

07-01-0013

- 13 Reo Tojo (Osaka Kyoiku Univ.) Matrix Hölder–McCarthy inequality via matrix geometric means 10
 Yuki Seo (Osaka Kyoiku Univ.)
 Ryosuke Nakayama
 (Osaka Kyoiku Univ.)

07-01-0014

- 14 Ryosuke Nakayama Reverse matrix quasi-arithmetic power means via matrix geometric means 10
 (Osaka Kyoiku Univ.)
 Yuki Seo (Osaka Kyoiku Univ.)
 Reo Tojo (Osaka Kyoiku Univ.)

07-01-0006

- 15 Yuki Seo (Osaka Kyoiku Univ.) Norm inequalities for deformed operator means 10

07-01-0005

- 16 Junichi Fujii (Osaka Kyoiku Univ.) Matrix means for a fixed rank positive semi-definite matrices 15

07-01-0002

- 17 Mitsuru Uchiyama Operator functions and operator means 15
 (Shimane Univ.* / Ritsumeikan Univ.)

07-01-0007

- 18 Takeaki Yamazaki (Toyo Univ.) A generalization of the Aluthge transformation in the viewpoint of operator means 15

14:15–15:10

07-01-0003

- 19 Chris Bruce (Univ. of Victoria) Partition functions as C^* -dynamical invariants and actions of congruence monoids 15
 Marcelo Laca (Univ. of Victoria)
 Takuya Takeishi (Kyoto Inst. Tech.)

07-01-0011

- 20 Tsuyoshi Kajiwara (Okayama Univ.) Dimension group of the C^* -algebras associated with self-similar maps with higher dimensional branched points set 15
 Yasuo Watatani (Kyushu Univ.*)

07-01-0019

- 21 Hiroyasu Hamada C^* -algebras generated by multiplication operators and composition operators by functions with self-similar branches 15
 (Sasebo Nat. Coll. of Tech.)

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

07-02-0002

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

Statistics and Probability

March 16th (Mon)

9:20–11:55

- 08-01-0012
1 Kiyoi Hoshino (Osaka Pref. Univ.) On a Riemann approximation of the stochastic integral 15
- 08-01-0023
2 Shigeyoshi Ogawa (Ritsumeikan Univ.) A noncausal counterpart of Girsanov's theorem 10
- 08-01-0002
3 Yuki Ueda (Hokkaido Univ.) Free max-probability theory 15
- 08-01-0017
4 Shoto Osaka (Yokohama Nat. Univ.) On the rate of convergence for Takagi class functions 15
Masato Takei (Yokohama Nat. Univ.)
- 08-01-0022
5 Yuto Nakajima (Kyoto Univ.) Connectedness of connectedness locus for fractal n -gons and the remarkable subset 15
- 08-01-0006
6 Yu Ito (Kyoto Sangyo Univ.) Integration with respect to Hölder rough paths of order greater than $1/4$: an approach via fractional calculus 15
- 08-01-0024
7 Yosuke Kawamoto (Fukuoka Dental Coll.) Transitions of generalised Bessel kernels related to biorthogonal ensembles 15
- 08-01-0025
8 Shota Osada (Kyushu Univ.) Isomorphism between determinantal point processes and Poisson point processes 15
- 08-01-0007
9 Yuta Arai (Chiba Univ.) The KPZ fixed point for discrete time TASEP 15

14:15–15:00

- 08-01-0028
10 Kouhei Matsuura (Kyoto Univ.) Hölder continuity of Neumann heat kernels on a class of planar domains 15
- 08-01-0027
11 Toshihiro Uemura (Kansai Univ.) Global path properties of symmetric stable processes with singular/degenerate coefficients 15
Haruna Okamura (Kansai Univ.)
- 08-01-0026
12 Atsushi Takeuchi (Tokyo Woman's Christian Univ.) Gradient formula for jump processes on manifolds 15

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

- 08-02-0002
Dai Taguchi (Okayama Univ.) Numerical analysis of stochastic differential equations

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

- 08-02-0004
Benoît Collins (Kyoto Univ.)^b On the operator norm of random matrices

March 17th (Tue)

9:10–11:25

- 08-01-0005
13 Hayato Takahashi (Random Data Lab.) Martin-Löf random sets and consistent theorem of posterior distributions 15
- 08-01-0035
14 Naoyuki Ichihara (Aoyama Gakuin Univ.) Convergence of value functions for finite horizon Markov decision processes with boundary conditions 15
- 08-01-0033
15 Masaaki Tsuchiya (Kanazawa Univ.)*^b Markov processes controlled by clocks with variable motion on a Euclidean space 15

08-01-0013	16 Yuji Hibino (Saga Univ.)	Construction of the canonical representation from a noncanonical representation	10
08-01-0008	17 Yushi Hamaguchi (Kyoto Univ.)	Time-inconsistent consumption-investment problems under general discount functions	15
08-01-0030	18 Noriyoshi Sakuma (Aichi Univ. of Edu.) Ryoichi Suzuki (Keio Univ.)	A Clark–Ocone–Haussmann type formula under change of measure for L^1 -canonical additive processes and its applications	10
08-01-0029	19 Toru Sera (Kyoto Univ.) Kouji Yano (Kyoto Univ.) Yu Ito (Kyoto Sangyo Univ.)	Resolution of sigma-fields for multiparticle finite-state action evolutions with infinite past	15
08-01-0034	20 Tomoki Inoue (Ehime Univ.)	Invariant measures of random dynamical systems with indifferent fixed points	15

11:30–12:00 Research Section Assembly

March 18th (Wed)

9:00–12:00

08-01-0009	21 Yuichi Goto (Waseda Univ.)	Estimation of trigonometric moments for circular distribution of MA(p) type by using binary series	10
08-01-0032	22 Akitoshi Kimura (Waseda Univ.)	The asymptotic variance estimators of the correlation estimator between latent processes and their asymptotic properties	15
08-01-0015	23 Fumiya Akashi (Univ. of Tokyo) Holger Dette (Ruhr-Univ. Bochum)	Robust regression on hyper-spheres with unspecified heteroscedastic errors	15
08-01-0016	24 Fumiya Akashi (Univ. of Tokyo) Junichi Hirukawa (Niigata Univ.) Konstantinos Fokianos (Lancaster Univ.)	Inference for heavy-tailed time varying processes by self-weighting	15
08-01-0031	25 Yan Liu (Waseda Univ.) Akitosho Kimura (Waseda Univ.) Masanobu Taniguchi (Waseda Univ.) Hernando Ombao (King Abdullah Univ. of Sci. Tech.)	Persistence diagram for Granger causality	15
08-01-0003	26 Ken-ichi Koike (Univ. of Tsukuba)	Attainment conditions for Bayesian information inequalities	10
08-01-0004	27 Koji Tsukuda (Univ. of Tokyo)	A note on the weak convergence of the posterior process when the Pitman–Yor process prior is placed	15
08-01-0020	28 Yoshihide Kakizawa (Hokkaido Univ.)	Density ratio/conditional density estimation for nonnegative data	15
08-01-0010	29 Nobuhiro Taneichi (Hokkaido Univ. of Edu.) Yuri Sekiya (Hokkaido Univ. of Edu.) Jun Toyama (Inst. for Practical Appl. of Math.)	Approximations of the distributions of test statistics for independence among groups of factors in a multi-way contingency table based on asymptotic expansion	15
08-01-0021	30 Kiyotaka Iki (Nihon Univ.)	Parsimonious bivariate t-distribution type symmetry models for square contingency tables	15

08-01-0019

- 31 Hiromu Yumiba E*-optimal balanced third-order designs of resolution $R^*({10, 01})$ with
(Int. Center for Academic Exchange) $N < \nu(m)$ for 3^m factorials 15
Yoshifumi Hyodo
(Okayama Univ. of Sci.)

14:15–15:05

08-01-0011

- 32 Yoshihiko Konno Shrinkage estimation of mean for complex multivariate normal distri-
(Japan Women's Univ.) bution with unknown covariance when $p > n$ 15
Satomi Seita (Japan Women's Univ.)

08-01-0014

- 33 Kazuyoshi Yata (Univ. of Tsukuba) Singular value estimation for high-dimensional cross-covariance matrix
Makoto Aoshima (Univ. of Tsukuba) 15

08-01-0018

- 34 Aki Ishii (Tokyo Univ. of Sci.) A test procedure for high-dimensional eigenvectors 15
Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)

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

08-02-0003

- Rie Enomoto (Seikei Univ.) Consistency of some information criteria in high-dimensional growth
curve models

16:35–17:35 Talk Invited by Statistics and Probability Section

08-02-0001

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

Applied Mathematics

March 16th (Mon)

10:00–11:40

09-01-0017

- 1 Masato Kobayashi (Kanagawa Univ.) Answer Henegphan–Petersen’s question on alternating permutations and Euler numbers 15

09-01-0027

- 2 Yukie Inaba (Japan Women’s Univ.)
Hajime Fujita (Japan Women’s Univ.)
Takefumi Kondo (Kagoshima Univ.) Counting rooted spanning forests and Chebyshev polynomials 15

09-01-0006

- 3 Iwao Sato (Oyama Nat. Coll. of Tech.)
Shigeki Matsutani (Kanazawa Univ.)
Hideo Mitsunashi (Hosei Univ.)
Hideaki Morita
(Muroan Inst. of Tech.) The partial differential coefficients for the second Bartholdi zeta function of a graph 15

09-01-0035

- 4 Ayaka Ishikawa (Yokohama Nat. Univ.) The Ihara expressions of the quaternionic Mizuno–Sato zeta functions for digraphs 15

09-01-0007

- 5 Osamu Kada (Hosei Univ.) Characteristic polynomials and zeta functions of equitably partitioned graphs 15

09-01-0034

- 6 Hideaki Morita (Muroan Inst. of Tech.) On the determinant expression for graph zeta functions 15

14:20–16:05

09-01-0016

- 7 Shinya Fujita (Yokohama City Univ.) Recent topics on rainbow connectivity in edge-colored graphs 10

09-01-0036

- 8 Michitaka Furuya (Kitasato Univ.) Bounds on self domination number and an edge-deletion operation in trees 15

09-01-0011

- 9 Kiyoshi Ando
(Nat. Inst. of Information/JST ERATO)
Yoshimi Egawa (Tokyo Univ. of Sci.) Contractible edges and contractible triangles in a 3-connected graph 15

09-01-0003

- 10 Chie Nara (Meiji Univ.)
Jin-ichi Itoh (Sugiyama Jogakuen Univ.) Continuous flattening of the 2-skeletons of triangular faces in higher dimensional cross-polytopes 15

09-01-0033

- 11 Yasuhide Numata (Shinshu Univ.)
Akiko Yazawa (Shinshu Univ.) The eigenvalues of a matrix defined by the complete graph with selfloops 15

09-01-0040

- 12 Sho Suda (Nat. Defense Acad. of Japan)
Alexander Gavriljuk
(Pusan Nat. Univ.) On the multiplicities of digraph eigenvalues 10

09-01-0021

- 13 Ryoya Fukasaku (Kyushu Univ.)
Michitaka Furuya (Kitasato Univ.)
Akihiro Higashitani (Osaka Univ.) Chromatic numbers of tensor products of graphs and Gröbner basis 15

16:20–17:20 Talk Invited by Applied Mathematics Section

09-02-0003

- Masanori Sawa (Kobe Univ.) On the rationality of classical orthogonal polynomials, quadrature formulas and geometric designs

March 17th (Tue)

9:50–11:15

09-01-0012

- 14 Ryota Hanaoka (Yokohama Nat. Univ.) A time-series analysis based on two-state quantum walk in one dimension 10
Norio Konno (Yokohama Nat. Univ.)
Shohei Koyama (Yokohama Nat. Univ.)

09-01-0022

- 15 Masahiro Asano (Yokohama Nat. Univ.) Long-time behavior of the Grover walk on the two-dimensional lattice 15
Norio Konno (Yokohama Nat. Univ.)
Akihiro Narimatsu
(Yokohama Nat. Univ.)

09-01-0029

- 16 Takuto Naito (Yokohama Nat. Univ.) Recommendation models based on walks (Part 1) 10
Chusei Kiumi (Yokohama Nat. Univ.)
Norio Konno (Yokohama Nat. Univ.)
Sarato Takahashi
(Yokohama Nat. Univ.)

09-01-0030

- 17 Chusei Kiumi (Yokohama Nat. Univ.) Recommendation models based on walks (Part 2) 10
Norio Konno (Yokohama Nat. Univ.)
Takuto Naito (Yokohama Nat. Univ.)
Sarato Takahashi
(Yokohama Nat. Univ.)

09-01-0031

- 18 Takashi Komatsu (Univ. of Tokyo) An explicit expression of scattering matrix of a two state quantum walk on one-dimensional lattice by path counting 15
Norio Konno (Yokohama Nat. Univ.)
Hisashi Morioka (Ehime Univ.)
Etsuo Segawa (Yokohama Nat. Univ.)

09-01-0041

- 19 Yusuke Ide (Kanazawa Inst. of Tech.) Relationships between orthonormal polynomial related to the limit distribution of quantum walk and corresponding random walk 15
Norio Konno (Yokohama Nat. Univ.)

11:30–11:50 Presentation Ceremony for the 2019 MSJ Prize for Excellent Young Applied Mathematicians

March 18th (Wed)

9:30–12:00

09-01-0032

- 20 Ken Nakashima (Shizuoka Univ.) On approximation of 2D persistence modules by interval-decomposables 15
Hideto Asashiba (Shizuoka Univ.)
Emerson Gaw Escolar
(RIKEN/Kyoto Univ.)
Michio Yoshiwaki
(RIKEN/Kyoto Univ./Osaka City Univ.)

09-01-0025

- 21 Emerson Gaw Escolar Every pair of Λ -interleavings is $\tilde{\Lambda}$ -interleaved 15
(RIKEN/Kyoto Univ.)
Killian F. Meehan (Kyoto Univ.)
Michio Yoshiwaki
(RIKEN/Osaka City Univ./Kyoto Univ.)

09-01-0008

- 22 Ippei Obayashi (RIKEN/Tohoku Univ.) Field choice problem on persistent homology 15
Michio Yoshiwaki
(RIKEN/Osaka City Univ./Kyoto Univ.)

09-01-0020

- 23 Tatsuya Mikami (Kyoto Univ.) First passage percolation on a crystal lattice 15

09-01-0037

- 24 Tatsuki Shimizu (Kyoto Univ.) Limit theorems in the decomposition theory of multi-parameter persistent homology 15
Yasuaki Hiraoka (Kyoto Univ.)

09-01-0019

- 25 Emerson Gaw Escolar Mapping firms' locations in technological space: A topological analysis of patent statistics 15
 (RIKEN/Kyoto Univ.)
Yasuaki Hiraoka (Kyoto Univ.)
Mitsuru Igami (Yale Univ.)
Yasin Ozcan (MIT Sloan)

09-01-0013

- 26 Yusuke Imoto (Kyoto Univ.) Data-noise reduction method based on high-dimensional statistics and its application to genetic data 15
Yasuaki Hiraoka
 (Kyoto Univ./Kyoto Univ./RIKEN)
Michio Yoshiwaki (RIKEN)
Emerson G. Escolar (RIKEN)
Tomonori Nakamura (Kyoto Univ.)
Takuya Yamamoto (Kyoto Univ.)
Mitinori Saitou
 (Kyoto Univ./Kyoto Univ./Kyoto Univ.)

09-01-0024

- 27 Yusuke Imoto (Kyoto Univ.) Estimate of gene regulatory network based on dynamical system and statistical causal discovery 15
Yasuaki Hiraoka
 (Kyoto Univ./Kyoto Univ./RIKEN)
Shohei Shimizu (Shiga Univ./RIKEN)
Takashi Nicholas Maeda (RIKEN)
Yoji Kojima (Kyoto Univ.)
Mitinori Saitou
 (Kyoto Univ./Kyoto Univ./Kyoto Univ.)

14:30–15:50

09-01-0009

- 28 Takeshi Gotoda (Nagoya Univ.) Numerical study of initial configurations leading to collapse in the point-vortex system 15

09-01-0010

- 29 Taito Tauchi (Univ. of Tokyo) Existence of a conjugate point in the incompressible Euler flow on an ellipsoid 15
Tsuyoshi Yoneda (Univ. of Tokyo)

09-01-0014

- 30 Takashi Teramoto Pinned pulse solutions inside a bump type heterogeneity 10
 (Asahikawa Medical Univ.)
Peter van Heijster
 (Queensland Univ. of Tech.)

09-01-0023

- 31 Takayuki Kubo (Ochanomizu Univ.) On global in time solution to Burgers equation with a time delay 15
Yoshihiro Ueda (Kobe Univ.)

09-01-0039

- 32 Itsuki Watanabe (Waseda Univ.) Central limit theorem for data-diffusion with linear reactions 15
Hiroshi Toyozumi (Waseda Univ.)

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

09-02-0001

- Sungrim Seirin Lee (Hiroshima Univ.) Reaction-diffusion equation, its infinite talent in pattern formation of life science

March 19th (Thu)

9:15–10:50

09-01-0001

- 33 Shunji Horiguchi Binomial expansions of Newton's method and comparison of convergence 10

09-01-0002

34 Shunji Horiguchi

Examples of numerical calculations of the binomial expansions of Newton's method 10

09-01-0015

35 Fuminori Sakaguchi (Univ. of Fukui)

A possibility of wider application of an algorithm for solving ODEs by means only of four arithmetical operations among integers 15

09-01-0005

36 Koichi Anada

(Waseda Univ. Senior High School)

Tetsuya Ishiwata

(Shibaura Inst. of Tech.)

Takeo Ushijima (Tokyo Univ. of Sci.)

A remark on asymptotic behavior of blow-up solutions to a quasi-linear parabolic equation for a curve shortening problem 15

09-01-0018

37 Takehiko Kinoshita (Kyushu Univ.)

Watanabe Yoshitaka (Kyushu Univ.)

Mitsuhiro T. Nakao (Waseda Univ.)

On the strong convergence of some approximate operators for resolvents of bounded operators 15

09-01-0026

38 Akitoshi Takayasu (Univ. of Tsukuba)

Jean-Philippe Lessard (McGill Univ.)

Jonathan Jaquette (Brandeis Univ.)

Hisashi Okamoto (Gakushuin Univ.)

Rigorous numerics for nonlinear heat equations in the complex plane of time 15

11:00–12:00 Talk Invited by Applied Mathematics Section

09-02-0002

Katsuhisa Ozaki

(Shibaura Inst. of Tech.)

Error-free transformation for matrix multiplication: Basic, applications, and future

Topology

March 16th (Mon)

10:00–12:00

- [10-01-0006](#)
1 Ryo Horiuchi (Nagoya Univ.)^b Verschiebung maps among K-groups of truncated polynomial algebras
..... 10
- [10-01-0017](#)
2 Shunsuke Kano (Tokyo Tech) Algebraic entropy of sign-stable mutation loops 15
Tsukasa Ishibashi (Univ. of Tokyo)
- [10-01-0005](#)
3 Taro Asuke (Univ. of Tokyo)^b On Fatou sets of foliations 15
- [10-01-0024](#)
4 Atsuhide Mori (Osaka Dental Univ.) Geometry of Bayesian estimation 15
- [10-01-0009](#)
5 Teruaki Kitano (Soka Univ.) Twisted Alexander polynomials of torus links 10
Takayuki Morifuji (Keio Univ.)
Anh T. Tran (Univ. Texas at Dallas)
- [10-01-0010](#)
6 Yuta Nozaki (Meiji Univ.) Abelian quotients of the Y -filtration on the homology cylinders via the
Masatoshi Sato (Tokyo Denki Univ.) LMO functor 15
Masaaki Suzuki (Meiji Univ.)
- [10-01-0013](#)
7 Ryoto Tange (Tokyo Denki Univ.) Twisted Alexander polynomials of hyperbolic twist knots and von Dyck
groups 10
- [10-01-0022](#)
8 Takefumi Nosaka (Tokyo Tech) K_1 -Alexander twisted polynomials of knots 15

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

- [10-02-0002](#)
Takayuki Morifuji (Keio Univ.) Twisted Alexander polynomials of hyperbolic knots and links

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

- [10-02-0003](#)
Naoki Fujita (Univ. of Tokyo) Toric degenerations arising from Newton–Okounkov bodies and cluster
structures

March 17th (Tue)

10:00–12:00

- [10-01-0004](#)
9 Atsushi Ishii (Univ. of Tsukuba) A multiple group rack and oriented spatial surfaces 10
Shosaku Matsuzaki (Takushoku Univ.)
Tomo Murao (Univ. of Tsukuba)
- [10-01-0011](#)
10 Atsushi Ishii (Univ. of Tsukuba) The fundamental multiple conjugation quandle of a handlebody-knot
..... 10
- [10-01-0012](#)
11 Ryoma Kobayashi Infinite presentations for the mapping class group and its twist subgroup
(Ishikawa Nat. Coll. of Tech.) of a compact non-orientable surface 15
Genki Omori (Tokyo Univ. of Sci.)
- [10-01-0023](#)
12 Genki Omori (Tokyo Univ. of Sci.) Dehn twist-crosscap slide presentations for involutions on non-orientable
Naoki Sakata (Saitama Univ.) surfaces of genus 4 and 5 15
- [10-01-0014](#)
13 Takuya Ukida (Tokyo Tech) Genus zero PALF structures on the Akbulut–Yasui plugs 10
- [10-01-0021](#)
14 Nobutaka Asano (Tohoku Univ.) Vertical 3-manifolds in simplified genus 2 trisections of 4-manifolds ... 15
- [10-01-0002](#)
15 Masaki Taniguchi (Univ. of Tokyo) Seifert hypersurfaces of 2-knots and Chern–Simons functional 15
- [10-01-0015](#)
16 Jun O'Hara (Chiba Univ.) Regularization of self-inductance 15

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

10-02-0001

Hokuto Konno (RIKEN) Gauge theory and diffeomorphism and homeomorphism groups

March 18th (Wed)

10:00–12:00

10-01-0001

17 Katsumi Ishikawa (Kyoto Univ.) Minimal coloring numbers on minimal diagrams of torus links 10
Kazuhiro Ichihara (Nihon Univ.)
Eri Matsudo (Nihon Univ.)

10-01-0003

18 Natsumi Oyamaguchi (Shumei Univ.) Pallets of Dehn p -coloring for spatial graphs 10
Kanako Oshiro (Sophia Univ.)

10-01-0007

19 Mario Eudave-Muñoz ^b (Univ. Nacional Autónoma de México) The maximum and minimum genus of a multibranching surface 15
Makoto Ozawa (Komazawa Univ.)

10-01-0016

20 Noboru Ito (Univ. of Tokyo) The tabulation of prime knot projections with their mirror images up to eight double points 10
Yusuke Takimura
(Gakushuin Boys' Junior High School)

10-01-0019

21 Kazuhiro Ichihara (Nihon Univ.) Two-bridge knots admit no purely cosmetic surgeries 15
Toshio Saito (Joetsu Univ. of Edu.)
In Dae Jong (Kindai Univ.)
Thomas W. Mattman
(California State Univ., Chico)

10-01-0020

22 Yasuharu Nakae (Akita Univ.) Dehn surgeries along genus one fibered knots and left-orderability of fundamental groups 15
Kazuhiro Ichihara (Nihon Univ.)

10-01-0025

23 Toshifumi Tanaka (Gifu Univ.) On satellite knots with symmetric union presentations 10

10-01-0026

24 Tetsuya Abe (Ritsumeikan Univ.) Table of annulus presentations of knots 10
Keiji Tagami (Nat. Fisheries Univ.)

10-01-0018

25 Tetsuya Itoh (Kyoto Univ.) Infiniteness of closed braid representatives 10

Infinite Analysis

March 18th (Wed)

14:15–16:15

11-01-0009

- 1 Koichi Hiraide (Ehime Univ.) Stokes-like phenomena which appear in dynamics of complex Henon maps 15
 Chihiro Matsuoka (Osaka City Univ.)

11-01-0001

- 2 Nozomu Matsuura Explicit formula for planar discrete elasticae 15
 (Kurume Inst. of Tech.)

11-01-0015

- 3 Yuuki Tadokoro Nonlinear $O(3)$ sigma model in discrete complex analysis 15
 (Nat. Inst. of Tech., Kisarazu Coll.)
 Masayoshi Sekiguchi
 (Nat. Inst. of Tech., Kisarazu Coll.)
 Masaru Kamata
 (Nat. Inst. of Tech., Kisarazu Coll.*)

11-01-0008

- 4 Yas-Hiro Quano Runge–Lenz like vectors for central force fields 15
 (Suzuka Univ. of Med. Sci.)

11-01-0018

- 5 Junichi Shiraishi (Univ. of Tokyo) Non-stationary Ruijsenaars function 15

11-01-0019

- 6 Junichi Shiraishi (Univ. of Tokyo) Non-stationary and stationary Ruijsenaars functions and eigenvalue problem associated with Ruijsenaars operator 15

11-01-0012

- 7 Yusuke Ohkubo (Univ. of Tokyo) Non-stationary Ruijsenaars functions and intertwining operators of the
 Jun'ichi Shiraishi (Univ. of Tokyo) Ding–Iohara–Miki algebra 15
 Masayuki Fukuda (Univ. of Tokyo)

16:30–17:30 Talk Invited by Infinite Analysis Special Session

11-02-0002

- Hideya Watanabe (Kyoto Univ.) q -quantizations

March 19th (Thu)

9:45–11:30

11-01-0014

- 8 Sanefumi Moriyama (Osaka City Univ.) Quantum curves and Weyl groups 15

11-01-0017

- 9 Kanehisa Takasaki (Kindai Univ.) Equivariant Gromov–Witten theory of CP^1 and equivariant Toda hierarchy 15

11-01-0006

- 10 Hiroyuki Yamane (Univ. of Toyama) On typical irreducible characters of generalized quantum groups 15

11-01-0004

- 11 Ryo Fujita (Kyoto Univ.) Singularities of normalized R -matrices between fundamental modules over the affine quantum groups of type ADE 15

11-01-0002

- 12 Yasuaki Gyoda (Nagoya Univ.) Relation between f -vectors and d -vectors in cluster algebras of finite type or rank 2 15

11-01-0016

- 13 Naoto Okubo (Aoyama Gakuin Univ.) Cluster algebras and higher order q -Painlevé systems of type $A_7^{(1)}$ 15
 Tetsu Masuda (Aoyama Gakuin Univ.)
 Teruhisa Tsuda (Hitotsubashi Univ.)

14:15–16:00

11-01-0003

14 Genki Shibukawa (Kobe Univ.) Another proof of difference equations for interpolation Jack polynomials
 15

11-01-0007

15 Ryuya Matsunawa (Chuo Univ.) Variants of confluent q -hypergeometric equations 15
 Tomoki Sato (Chuo Univ.)
 Kouichi Takemura (Ochanomizu Univ.)

11-01-0010

16 Hiroshi Kawakami On four-dimensional Painlevé-type difference equations 15
 (Aoyama Gakuin Univ.)

11-01-0011

17 Hiroshi Kawakami A q -analogue of the matrix sixth Painlevé system 15
 (Aoyama Gakuin Univ.)

11-01-0013

18 Masahiko Ito (Univ. of Ryukyus) q -Difference system for the elliptic hypergeometric integral of type G_2
 Masatoshi Noumi (Kobe Univ.) with six parameters 15

11-01-0005

19 Hidehito Nagao (Akashi Coll. of Tech.) Padé method and q -quadratic Garnier systems 15
 Yasuhiko Yamada (Kobe Univ.)

16:15–17:15 Talk Invited by Infinite Analysis Special Session

11-02-0001

Yoshihisa Saito (Rikkyo Univ.) On elliptic Artin groups