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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 Z means the talk by using a Zoom Video Webinar.
- 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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49 Takenori Kataoka (Keio Univ.) Z Stark systems and equivariant main conjectures 10

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50 Hideki Matsumura (Keio Univ.) Z Infinitely many hyperelliptic curves with exactly two rational points 10

02-01-0040
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52 Masakazu Yamagishi (Nagoya Inst. of Tech.) On rational formal groups ..... *

02-01-0028
53 Masakazu Yamagishi (Nagoya Inst. of Tech.) Formal weight enumerators and Chebyshev polynomials ..... *

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60 Kota Saito (Nagoya Univ.) Z
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62 Genki Shibukawa (Kobe Univ.) Z An equivalent condition for the Markov triples and the Diophantine equation $a^2+b^2+c^2=abcf(a,b,c)$ 10

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5 Kyoji Sugimoto (Tokyo Univ. of Sci.) Z
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03-01-0027
6 Toru Kajigaya (Tokyo Denki Univ.) Z
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03-01-0009
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03-01-0006
8 Takuma Tomihisa (Waseda Univ.) Z
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03-01-0017
9 Hiroyuki Tasaki (Univ. of Tsukuba)
Makiko Sumi Tanaka (Tokyo Univ. of Sci.)
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03-01-0004
10 Masaya Kawamura (Kagawa Nat. Coll. of Tech.)
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03-01-0022
11 Taro Kimura (Nat. Inst. of Tech., Tsuruoka Coll.)
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12 Yasushi Homma (Waseda Univ.)
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13 Noriaki Ikeda (Ritsumeikan Univ.) Z
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14 Yoshiki Kaneko (Waseda Univ.) Z
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15 Masahiro Futaki (Chiba Univ.) Z
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16 Yuuki Sasaki (Univ. of Tsukuba)
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March 16th (Tue)

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Ryosuke Takahashi (Kyushu Univ.) [Z] Some geometric flow approaches for deformed Hermitian–Yang–Mills equation

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22 Daisuke Kazukawa (Osaka Univ.) [Z] Convergence of metric transformed spaces 15

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23 Yoshito Ishiki (Univ. of Tsukuba) [Z] An embedding, an extension, and an interpolation of ultrametrics 15

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26 Tadashi Fujioka (Kyoto Univ.) [Z] Serre fibration structure of collapsing Alexandrov spaces 15

03-01-0008
27 Yuya Kodama (Tokyo Metro. Univ.) [Z] Divergence function of the braided Thompson group 15

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28 Tomoshige Yukita (Waseda Univ.) [Z] Continuity of the growth rates of Coxeter groups 15

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Complex Analysis

March 15th (Mon)

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

04-02-0003
Tetsu Shimomura (Hiroshima Univ.) Z Sobolev's inequality on Musielak–Orlicz–Morrey spaces

14:15–15:15 Award Lecture for the 2020 MSJ Analysis Prize

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Hideki Miyachi (Kanazawa Univ.) Z Complex analysis on Teichmüller space

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04-01-0009
1 Yôsuke Hishikawa (Gifu Univ.) Z
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04-01-0001
7 Shunji Horiguchi
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9 Takanori Ayano (Osaka City Univ.) Z
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10 Takayuki Koike (Osaka City Univ.) Z
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04-01-0006
11 Masanori Adachi (Shizuoka Univ.) Z
Séverine Biard (Univ. Polytechnique Hauts-de-France)
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04-01-0007
12 Takeo Ohsawa (Nagoya Univ.) Z — Variants of Hörmander's theorem on q-convex manifolds by a technique of infinitely many weights 15

04-01-0002
13 Masataka Iwai (Osaka City Univ.) — On projective manifolds whose tangent bundles contain positive subbundles ..... *

04-01-0008
14 Makoto Abe (Hiroshima Univ.)
Tadashi Shima (Hiroshima Univ.)
Shun Sugiyama (NEC Comm. Systems, Ltd.) — A generalization of a theorem of Kühnel on globally defined analytic sets ..... *

04-01-0003
15 Katsusuke Nabeshima (Univ. of Tokushima)
Shinichi Tajima (Niigata Univ.⋆) — Computing κ-invariants of isolated hypersurface singularities ..... *

04-01-0004
16 Shinichi Tajima (Niigata Univ.⋆)
Katsusuke Nabeshima (Univ. of Tokushima) — Logarithmic vector fields along singular plane curves and Camacho–Sad–Suwa indices ..... *

04-01-0011
17 Hidetaka Hamada (Kyushu Sangyo Univ.)
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Functional Equations

March 15th (Mon)

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Satoshi Tanaka (Tohoku Univ.)
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2 Satoshi Tanaka (Tohoku Univ.) Z
Masakazu Onitsuka (Okayama Univ. of Sci.)
Kenta Itakura (Matsue Yamamoto Metal Co. Ltd.)
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3 Sohei Ashida (Gakushuin Univ.) Z
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4 Haruya Mizutani (Osaka Univ.) Z
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05-01-0027
5 Takanobu Hara (Hokkaido Univ.) Z
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05-01-0016
6 Takeshi Suguro (Tohoku Univ.) Z
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05-01-0071
7 Naoki Hamamoto (Osaka City Univ.) Z
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8 Kensuke Yoshizawa (Tohoku Univ.) Z
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05-01-0061
9 Kousuke Kuto (Waseda Univ.) Z
Full cross-diffusion limit in the stationary Shigesada–Kawasaki–Teramoto model ····· 15

05-01-0039
10 Yasuhito Miyamoto (Univ. of Tokyo) Z
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11 Tomoyuki Oka (Tohoku Univ.) Z
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16 Tetsutaro Shibata (Hiroshima Univ.)
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17 Ichiro Tsukamoto (Toyo Univ.)
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05-01-0025
18 Hidetoshi Tahara (Sophia Univ.*) On a class of singular nonlinear first order partial differential equations ..... *

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19 Kenta Higuchi (Ritsumeikan Univ.) Resonance free domain for a system of Schrödinger operators with energy-level crossings ..... *

05-01-0029
20 Kengo Terai (Univ. of Tokyo) Remarks on the vanishing discount problem for infinite systems of Hamilton–Jacobi–Bellman equations ..... *

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Akihito Ebisu (Chiba Inst. of Tech.) Z Hypergeometric functions and difference equations

March 16th (Tue)

9:00–12:00

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21 Erbol Zhanpeisov (Univ. of Tokyo) Z Blow-up rate of sign-changing solutions to nonlinear parabolic systems 15

05-01-0076
22 Piotr Biler (Univ. of Wrocław) Z
Grzegorz Karch (Univ. of Wrocław)
Hiroshi Wakui (Tokyo Univ. of Sci.)
Existence of a forward self-similar solution to a drift-diffusion equation 15

05-01-0021
23 Shota Tateyama (Univ. of Tokyo) Z Hölder gradient estimates on L^p-viscosity solutions of fully nonlinear parabolic equations with VMO coefficients 10

05-01-0060
24 Nobuhito Miyake (Tohoku Univ.) Z
Hans-Christoph Grunau (Univ. of Magdeburg)
Shinya Okabe (Tohoku Univ.)
Positivity of solutions to the Cauchy problem for linear and semilinear biharmonic heat equations 15

05-01-0010
25 Isamu Ohnishi (Hiroshima Univ.) Z Characterization to a time global solution of a nonlinear parabolic PDE 15

05-01-0050
26 Toshikazu Kuniya (Kobe Univ.) Z Analysis for an SIR epidemic model with diffusion under the different boundary conditions 15

05-01-0054
27 Takayoshi Ogawa (Tohoku Univ.) Z
Masaki Kurokiba (Muroran Inst. of Tech.)
Zero relaxation time limit for the solution to the Keller–Segel system to the drift-diffusion equations 15

05-01-0005
28 Yutaro Chiyo (Tokyo Univ. of Sci.) Z
Tomomi Yokota (Tokyo Univ. of Sci.)
Remarks on finite-time blow-up in a fully parabolic attraction-repulsion chemotaxis system 15

05-01-0004
29 Yuya Tanaka (Tokyo Univ. of Sci.) Z Finite-time blow-up in a quasilinear parabolic–elliptic Keller–Segel system with logistic source 15

05-01-0065
30 Mario Fuest (Paderborn Univ.) Z
Johannes Lankeit (Paderborn Univ.)
Masaaki Mizukami (Tokyo Univ. of Sci.)
Asymptotic behavior in a chemotaxis-consumption model with realistic boundary conditions for the oxygen 15

05-01-0023
31 Mikihiro Fujii (Kyushu Univ.) Time periodic solutions to the 2D quasi-geostrophic equation with the supercritical dissipation ..... *

05-01-0045
32 Kazuhiro Takimoto (Hiroshima Univ.) The exterior Dirichlet problem for the generalized parabolic k-Hessian equations ..... *

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

05-02-0002
Norisuke Ioku (Tohoku Univ.) Z The best constant of the Sobolev type inequality

March 17th (Wed)

9:00–12:00

05-01-0070
33 Ikkei Shimizu (Kyoto Univ.) Z Local well-posedness for the Landau–Lifshitz equation with helicity term 15

05-01-0059
34 Koichi Komada (Tohoku Univ.) Z Existence of blow-up solutions for quantum Zakharov system 15

05-01-0020
35 Takuya Sato (Tohoku Univ.) Z L^2-decay for the one dimensional dissipative nonlinear Schrödinger equation in the Gevrey class 15

05-01-0036
36 Yuki Osada (Tokyo Metro. Univ.) Z Energy asymptotic expansion of a nonlinear Schrödinger equations with three wave interaction 10

05-01-0075
37 Kazuki Aoki Z
Takahisa Inui (Osaka Univ.)
Hayato Miyazaki (Kagawa Univ.)
Haruya Mizutani (Osaka Univ.)
Kota Uriya (Okayama Univ. of Sci.)
Asymptotic behavior of solutions to the nonlinear Schrödinger equation on the star graph with the Kirchhoff boundary condition 15

05-01-0044
38 Hiroyuki Hirayama (Univ. of Miyazaki) Z
Shinya Kinoshita (Univ. Bielefeld)
Mamoru Okamoto (Osaka Univ.)
Optimal Sobolev index for well-posedness of the system of derivative nonlinear Schrödinger equations 15

05-01-0002
39 Haruya Mizutani (Osaka Univ.) Z
Xiaohua Yao (Central China Normal Univ.)
Resolvent and Strichartz estimates for fractional Schrödinger operators with Hardy potentials 15

05-01-0072
40 Ryo Muramatsu (Tokyo Univ. of Sci.) Z Estimates on modulation spaces for solutions to Schrödinger equations with vector potentials 10

05-01-0046
41 Satoshi Masaki (Osaka Univ.) Z
Koki Sugiyama (Osaka Univ.)
Optimal decay rate of solutions to nonlinear Klein–Gordon systems 15

05-01-0034
42 Hiroshi Takase (Univ. of Tokyo) Z Inverse source problem for a system of wave equations on Lorentzian manifolds 15

14:15–15:30

05-01-0062
43 Kimitoshi Tsutaya (Hirosaki Univ.) Z
Yuta Wakasugi (Hiroshima Univ.)
On heatlike lifespan of solutions of semilinear wave equations in Friedmann–Lemaître–Robertson–Walker spacetime 15

05-01-0064
44 Kimitoshi Tsutaya (Hirosaki Univ.) Z
Yuta Wakasugi (Hiroshima Univ.)
Blow up of solutions of semilinear wave equations related to nonlinear waves in accelerated expanding FLRW spacetime 15

05-01-0031
45 Mamoru Okamoto (Osaka Univ.) Z
Tadahiro Oh (Univ. of Edinburgh)
Leonardo Tolomeo (Univ. Bonn)
Almost sure global well-posedness for the focusing nonlinear wave equation with a Hartree-type nonlinearity 15

05-01-0058
46 Tomoyuki Tanaka (Nagoya Univ.) Z
Kyouhei Wakasa (Kushiro Nat. Coll. of Tech.)
On the critical decay for the wave equation with a cubic convolution in 3D 10

05-01-0068
47 Tomoyuki Tanaka (Nagoya Univ.)
Kotaro Tsugawa (Chuo Univ.)
Well-posedness and parabolic smoothing effect for higher order Schrödinger type equations with constant coefficients ..... *

05-01-0017
48 Sojiro Murai (Tokyo Metropolitan Coll. of Indus. Tech.) Strichartz estimates for magnetic wave equation in exterior domain and its application ····· ∗

05-01-0033
49 Hironobu Sasaki (Chiba Univ.) The scattering problem for the three-dimensional cubic nonlinear Klein–Gordon equation with rapidly decreasing input data ····· ∗

05-01-0063
50 Masaru Hamano (Saitama Univ.), Masahiro Ikeda (RIKEN/Keio Univ.) Instability of standing waves to nonlinear Klein–Gordon equation with an inverse-square potential ····· ∗

05-01-0006
51 Takashi Furuya (Nagoya Univ.) The monotonicity method for the inverse crack scattering problem ··· ∗

05-01-0056
52 Gen Nakamura (Hokkaido Univ.) Sampling methods for inverse boundary value problems ····· ∗

05-01-0069
53 Gen Nakamura (Hokkaido Univ.) An inverse boundary value problem for anisotropic elastic equation ··· ∗

15:40–16:40 Award Lecture for the 2020 MSJ Analysis Prize

05-02-0001
Hirokazu Ninomiya (Meiji Univ.) [z] The world of reaction-diffusion systems

March 18th (Thu)

9:00–12:00

05-01-0051
54 Tomoki Takahashi (Nagoya Univ.) [z] Existence of a stationary Navier–Stokes flow past a rigid body, with application to starting problem in higher dimensions ····· 15

05-01-0052
55 Motofumi Aoki (Tohoku Univ.) [z], Tsukasa Iwabuchi (Tohoku Univ.) Remark on smoothing property of weak solutions for the Navier–Stokes equations ····· 10

05-01-0040
56 Hideo Kozono [z] (Waseda Univ./Tohoku Univ.), Yutaka Terasawa (Nagoya Univ.), Yuta Wakasugi (Hiroshima Univ.) Asymptotic behavior of solutions to elliptic equations with unbounded coefficients of the second order in unbounded domains ····· 15

05-01-0041
57 Hideo Kozono [z] (Waseda Univ./Tohoku Univ.), Yutaka Terasawa (Nagoya Univ.), Yuta Wakasugi (Hiroshima Univ.) Asymptotic properties of steady solutions to the 3D axisymmetric Navier–Stokes equations with no swirl ····· 15

05-01-0055
58 Hideo Kozono [z] (Waseda Univ./Tohoku Univ.), Erika Ushikoshi (Yokohama Nat. Univ.), Fumitaka Wakabayashi (Waseda Univ.) Removability of time-dependent singularities of the Stokes equations ····· 15

05-01-0042
59 Tatsu-Hiko Miura (Kyoto Univ.) [z] Global existence of a strong solution to the Navier–Stokes equations in a curved thin domain ····· 15

05-01-0043
60 Tatsu-Hiko Miura (Kyoto Univ.) [z] Singular limit problem for the Navier–Stokes equations in a curved thin domain ····· 15

05-01-0019
61 Miho Murata (Shizuoka Univ.) [z], Takayuki Kobayashi (Osaka Univ.) The global well-posedness of the compressible fluid model of Korteweg type for the critical case ····· 10

05-01-0032
62 Kai Koike (Kyoto Univ.) [z] Refined pointwise estimates for the solutions to the one-dimensional compressible Navier–Stokes equations and the long-time behavior of a moving point mass ····· 15

05-01-0028
63 Ryosuke Nakasato (Tohoku Univ.) [z], Shuichi Kawashima (Waseda Univ.), Takayoshi Ogawa (Tohoku Univ.) Global well-posedness for the Hall-magnetohydrodynamic system in the critical Besov space ····· 15

14:15–15:30

05-01-0048
64 Masahiro Suzuki (Nagoya Inst. of Tech.) Z
Masashi Ohnawa
(Tokyo Univ. of Marine Sci. and Tech.)
Time-periodic solutions of symmetric hyperbolic systems 15

05-01-0049
65 Masahiro Suzuki (Nagoya Inst. of Tech.) Z
Walter Strauss (Brown Univ.)
Global bifurcation analysis of an equation of gas discharge 15

05-01-0067
66 Shota Sakamoto (Tokyo Tech) Z
Suzuki Masahiro (Nagoya Inst. of Tech.)
Katherine Zhiyuan Zhang
(Courant Inst. of Math. Sci.)
Asymptotic stability of an initial-boundary value problem of the Boltzmann equation in 3D half-space 15

05-01-0030
67 Tetu Makino (Yamaguchi Univ.*) Z
Asymptotically flat axisymmetric metric generated by rotating compact fluid mass 15

05-01-0037
68 Takeshi Gotoda (Nagoya Univ.)
A sufficient condition for the enstrophy conservation in 2D inviscid flows ..... *

05-01-0047
69 Kazuyuki Tsuda
(Kyushu Sangyo Univ.)
Reinhard Farwig (TU Darmstadt)
Uniform estimates for fractional operators ..... *

05-01-0012
70 Natsumi Yoshida (Ritsumeikan Univ.)
Asymptotic behavior of solutions toward the rarefaction waves to the Cauchy problem for the scalar conservation law with nonlinear viscosity ..... *

05-01-0013
71 Natsumi Yoshida (Ritsumeikan Univ.)
Decay properties of solutions toward the rarefaction waves to the Cauchy problem for the scalar conservation law with nonlinear viscosity ..... *

05-01-0014
72 Natsumi Yoshida (Ritsumeikan Univ.)
Global asymptotic stability of rarefaction waves to the Cauchy problem for the scalar diffusive dispersive conservation law ..... *

05-01-0015
73 Natsumi Yoshida (Ritsumeikan Univ.)
Global asymptotic stability of a multiwave pattern for the generalized Korteweg–de Vries–Burgers equation ..... *

15:40–16:40 Talk Invited by Functional Equations Section

05-02-0004
Takahiro Okabe (Osaka Univ.) Z
Asymptotic analysis of the solution to the Navier–Stokes equations by external forces

Real Analysis

March 17th (Wed)

10:30–11:50

06-01-0013
1 Yukino Tomizawa (Niigata Inst. of Tech.) [Z] The modulus of convexity of Busemann spaces 15

06-01-0004
2 Ryota Kawasumi [Z]
Eiichi Nakai (Ibaraki Univ.)
Calderón–Zygmund operators on Orlicz–Morrey and weak Orlicz–Morrey spaces 15

06-01-0008
3 Naoya Hatano (Chuo Univ./RIKEN) [Z]
Masahiro Ikeda (RIKEN)
Isao Ishikawa (Ehime Univ.)
Yoshihiro Sawano (Chuo Univ.)
A global universality of two-layer neural networks with ReLU activations 15

06-01-0006
4 Kojiro Higuchi (Nihon Univ.) [Z] The natural extensions of positive additive partial functionals 15

06-01-0019
5 Shin-ya Matsushita (Akita Pref. Univ.) [Z] On primal-dual splitting algorithms 15

06-01-0001
6 Takeshi Iida (Fukushima Nat. Coll. of Tech.) Weighted norm inequalities on Morrey spaces for the Orlicz-fractional maximal opearators ..... *

06-01-0007
7 Takashi Miyamoto (Osaka Kyoiku Univ.)
Hiro-o Kita (Kagoshima Univ.*)
Naoko Ogata (Kobe Univ.)
On generalized weak Orlicz spaces and F-norms constructed by φ-functions ..... *

06-01-0016
8 Ryutaro Arai (Ibaraki Univ.) Boundedness of fractional integrals on martingale Orlicz–Morrey spaces ..... *

06-01-0003
9 Hiroyasu Mizuguchi (Kansai Univ.) A certain geometric constant and von Neumann–Jordan constant in Radon planes ..... *

06-01-0011
10 Toshiharu Kawasaki (Nihon Univ./Tamagawa Univ.) On the family of extended integrable functions ..... *

14:30–15:30 Talk Invited by Real Analysis Section

06-02-0002
Koji Aoyama (Chiba Univ.) [Z] Strongly quasinonexpansive mappings and strongly quasinonexpansive sequences of mappings

March 18th (Thu)

10:00–11:45

06-01-0014
11 Shodai Kubota (Chiba Univ.) [Z]
Ken Shirakawa (Chiba Univ.)
Noriaki Yamazaki (Kanagawa Univ.)
Optimal control problems for one dimensional Fix–Caginalp type systems including singular diffusions 15

06-01-0015
12 Ken Shirakawa (Chiba Univ.) [Z]
Shodai Kubota (Chiba Univ.)
Ryota Nakayashiki (Salesian Polytech.)
Optimal temperature controls for 1D KWC type systems with dynamic boundary conditions 15

06-01-0010
13 Takeshi Fukao (Kyoto Univ. of Edu.) [Z]
Pierluigi Colli (Univ. of Pavia)
Vanishing diffusion in a dynamic boundary equation for the Cahn–Hilliard system. 15

06-01-0005
14 Chiharu Kosugi (Japan Women's Univ.) Z
Toyohiko Aiki (Japan Women's Univ.)
Existence of weak solutions for the initial and boundary value problems representing stretching and shrinking motion of the compressible elastic material on the plane 15

06-01-0012
15 Shunsuke Kurima (Tokyo Univ. of Sci.) Z
Employing a time discretization scheme for a parabolic-hyperbolic phase-field system with nonlocal term 15

06-01-0018
16 Masaaki Mizukami Z
(Tokyo Univ. of Sci.)
Uniform-in-time convergence of solutions for a chemotaxis-competition model on the weakly competitive case 15

14:15–14:45
06-01-0009
17 Hiroshi Watanabe (Oita Univ.) Z
Asymptotic behavior of entropy solutions to one-dimensional Cauchy problems for scalar parabolic-hyperbolic conservation laws 15

06-01-0020
18 Kota Kumazaki (Nagasaki Univ.) Z
Well-posedness of a one-dimensional free boundary problem describing water swelling within thin-elongated pores 15

06-01-0002
19 Noriaki Yamazaki (Kanagawa Univ.)
Nobuyuki Kenmochi (Chiba Univ.*)
Ken Shirakawa (Chiba Univ.)
Solvability of quasi-variational evolution inclusions via optimal control problems ..... *

06-01-0017
20 Makoto Nakamura (Yamagata Univ.)
Haruki Takashima (Yamagata Univ.)
On the Klein–Gordon equation with the Hartree type semilinear term in the de Sitter spacetime ..... *

15:00–16:00 Talk Invited by Real Analysis Section
06-02-0001
Kentarou Fujie (Tohoku Univ.) Z
Global solvability of some quasilinear chemotaxis systems

Functional Analysis

March 16th (Tue)

9:00–10:30

07-01-0012
1 Yoritaka Iwata (Kansai Univ.) Z — Unbounded generalization of logarithmic representation of infinitesimal generators by means of the resolvent operator ····· 15

07-01-0017
2 Kouichi Taira (Ritsumeikan Univ.) Z — Uniform Sobolev estimates for discrete Schrödinger operator in dimension three ····· 15

07-01-0002
3 Yuuya Yoshida (Nagoya Univ.) Z — Maximum dimension of subspaces with no product basis ····· 15

07-01-0004
4 Takashi Satomi (Univ. of Tokyo) Z — The optimal constant of Young–Beckner–Fournier's convolution inequality on unimodular locally compact groups ····· 15

07-01-0005
5 Toshihisa Kubo (Ryukoku Univ.) Z — Palindromic property of Cayley continuants $\{\mathrm{Cay}_k(x;n)\}_{k=0}^{\infty}$ ····· 15

07-01-0007
6 Shuji Watanabe (Gunma Univ.) — An operator-theoretical treatment of the critical magnetic field of a superconductor in the BCS-Bogoliubov model of superconductivity ··· *

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

07-02-0004
Takuya Mine (Kyoto Inst. Tech.) Z — Schrödinger operators with point interactions

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

07-02-0002
Toshiyuki Kobayashi (Univ. of Tokyo) Z — Tempered homogeneous spaces

March 17th (Wed)

9:00–10:45

07-01-0015
7 Yuta Enami (Niigata Univ.) Z — Range preserving maps between spaces of vector-valued continuous functions ····· 15

07-01-0013
8 Shiho Oi (Niigata Univ.) Z — 2-local isometries on commutative Banach algebras ····· 15

07-01-0016
9 Norio Niwa (Nihon Univ.) Z, Takeshi Miura (Niigata Univ.) — Surjective isometries on a Lipschitz space of analytic functions on the open unit disc ····· 15

07-01-0014
10 Keiichi Watanabe (Niigata Univ.) Z — On mappings between Möbius gyrovector spaces induced from bounded linear operators ····· 15

07-01-0009
11 Yuki Seo (Osaka Kyoiku Univ.) Z — Ando–Hiai type inequalities for deformed means ····· 15

07-01-0008
12 György Pál Gehér (Univ. of Reading) Z, Michiya Mori (Univ. of Tokyo) — The structure of maps on the space of all quantum pure states that preserve a fixed quantum angle ····· 15

07-01-0003
13 Saburou Saitoh (Gunma Univ.*/Inst. of Reproducing Kernels), Hiroshi Okumura — Some new type Laurent expansions and division by zero calculus; Spectral theory ····· *

07-01-0001
14 Takashi Shimomura (Nagoya Univ. of Economics) — Bratteli–Vershik model from basic set ····· *

07-01-0006
15 Yusuke Isono (Kyoto Univ.) — Boundary and rigidity of nonsingular Bernoulli actions ····· *

07-01-0010
16 Taro Sogabe (Kyoto Univ.) — A topological invariant for continuous fields of Cuntz algebras ····· *

07-01-0011
17 Yasuo Iida (Kanazawa Med. Univ.) — The Zygmund F-algebra on the upper half plane ····· *

11:00–12:00 Award Lecture for the 2020 MSJ Analysis Prize
07-02-0001
Kengo Matsumoto (Joetsu Univ. of Edu.) [z] Continuous orbit equivalence, topological conjugacy of symbolic dynamical systems and C*-algebras

14:30–15:30 Talk Invited by Functional Analysis Section
07-02-0003
Norio Nawata (Osaka Univ.) [z] Simple stably projectionless C*-algebras

Statistics and Probability

March 15th (Mon)

10:00–12:00

08-01-0004
1 Yuki Ueda [Z] (Nat. Inst. of Tech., Ichinoseki Coll.) — Free extreme value theory and its development 15

08-01-0009
2 Ikkei Hotta (Yamaguchi Univ.) [Z], Wojciech Młotkowski (Wrocław Univ.), Noriyoshi Sakuma (Aichi Univ. of Edu.), Yuki Ueda (Nat. Inst. of Tech., Ichinoseki Coll.) — On freely quasi-infinitely divisible distributions 15

08-01-0008
3 Johannes Jaerisch (Nagoya Univ.) [Z], Hiroki Takahasi (Keio Univ.) — Mixed Birkhoff spectra of one-dimensional Markov maps 15

08-01-0013
4 Jean-Dominique Deuschel [Z] (Tech. Univ. Berlin), Ryoki Fukushima (Univ. of Tsukuba) — Quenched tail estimate for the random walk in random scenery II 10

08-01-0027
5 Naotaka Kajino (Kobe Univ.) [Z] — An elementary proof of walk dimension being greater than two for Brownian motion on Sierpiński carpets 15

08-01-0022
6 Makoto Nakashima (Nagoya Univ.) [Z], Shuta Nakajima (Univ. of Basel), Clément Cosco (Weizmann Inst. of Sci.) — Fluctuation in L^2-region for stochastic heat equation and KPZ equation in higher dimension 15

08-01-0024
7 Atsushi Takeuchi [Z] (Tokyo Woman's Christian Univ.) — Wasserstein distance of solutions to stochastic differential equations with jumps 15

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

08-02-0004
Dai Taguchi (Okayama Univ.) [Z] — Numerical analysis of stochastic differential equations

15:35–16:35 Talk Invited by Statistics and Probability Section

08-02-0005
Benoît Collins (Kyoto Univ.) [Z] — On the operator norm of random matrices

March 16th (Tue)

Morning

08-01-0003
8 Saburou Saitoh (Gunma Univ.*/Inst. of Reproducing Kernels), Tsutomu Matsuura (Gunma Univ.), Hiroshi Okumura — Probability and stochastic analysis in reproducing kernels and division by zero calculus ..... *

08-01-0006
9 Yong Moo Chung (Hiroshima Univ.) — Multifractal formalism for multimodal maps ..... *

08-01-0011
10 Toshihiro Uemura (Kansai Univ.), Matsuyo Tomisaki (Nara Women's Univ.*) — Homogenization of symmetric Dirichlet forms ..... *

08-01-0015
11 Jian Ding (Univ. of Pennsylvania), Ryoki Fukushima (Univ. of Tsukuba), Ronfeng Sun (Nat. Univ. of Singapore), Changji Xu (Harvard Univ.) — Geometry of the random walk range conditioned on survival among Bernoulli obstacles ..... *

08-01-0016
12 Jian Ding (Univ. of Pennsylvania)
Ryoki Fukushima (Univ. of Tsukuba)
Ronfeng Sun (Nat. Univ. of Singapore)
Changji Xu (Harvard Univ.)
Biased random walk conditioned on survival among Bernoulli obstacles: subcritical phase ..... *

08-01-0025
13 Hiroshi Tsukada (Kagoshima Univ.)
Pathwise uniqueness and non-contact property of SDEs driven by Cauchy processes with drift ..... *

08-01-0002
14 Satoshi Suzuki (Shimane Univ.)
Optimality conditions and constraint qualifications for quasiconvex programming ..... *

08-01-0017
15 Toshiharu Fujita (Kyushu Inst. of Tech.)
On subproblems for Markov decision process with converging branch system ..... *

08-01-0007
16 Kento Egashira (Univ. of Tsukuba)
Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)
Asymptotic properties of distance weighted discrimination in high-dimensional settings ..... *

08-01-0018
17 Yugo Nakayama (Kyoto Univ.)
Kazuyoshi Yata (Univ. of Tsukuba)
Makoto Aoshima (Univ. of Tsukuba)
Asymptotic properties of kernel PCA for high-dimensional data and application to outlier detection ..... *

08-01-0028
18 Ayaka Yagi (Tokyo Univ. of Sci.)
Takashi Seo (Tokyo Univ. of Sci.)
A new test statistic for two mean vectors with monotone missing data ..... *

08-01-0026
19 Yan Liu (Waseda Univ.)
Masanobu Taniguchi (Waseda Univ.)
Hernando Ombao (King Abdullah Univ. of Sci. and Tech.)
Hypothesis testing for local Granger causality ..... *

08-01-0014
20 Koji Tsukuda (Kyushu Univ.)
Asymptotic evaluation for moments of length of Pitman partition ..... *

March 17th (Wed)

10:00–10:35

08-01-0019
21 Xiao-Nan Lu (Univ. of Yamanashi) Z
Enumeration and classification of two-level circulant almost orthogonal arrays with strength 2 and bandwidth 1 15

08-01-0012
22 Hiromu Yumiba (Int. Center for Academic Exchange) Z
Eiji Taniguchi (Ikeda High School)
Yoshifumi Hyodo (Okayama Univ. of Sci.)
E_A^*-optimal balanced third-order designs of resolution $R^*(\{10, 01\})$ with $N < \nu(m)$ for 3^m factorials 15

10:55–11:55 Talk Invited by Statistics and Probability Section

08-02-0003
Shoko Chisaki (Osaka Inst. of Tech.) Z
Design of experiments and their application to deep learning

14:15–15:00

08-01-0010
23 Yuichi Goto (Waseda Univ.) Z
Takuya Kaneko (Waseda Univ.)
Soichiro Kojima (Waseda Univ.)
Masanobu Taniguchi (Waseda Univ.)
Likelihood ratio processes under non-standard settings 15

08-01-0005
24 Yuta Koike (Univ. of Tokyo) Z
High-dimensional central limit theorems for homogeneous sums 15

08-01-0029
25 Yujie Xue (Waseda Univ.) Z
Two forms of AIC based on Modified LASSO 10

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

08-02-0002

Rie Enomoto (Seikei Univ.) [Z] Consistency properties of some information criteria in the growth curve model under a high-dimensional framework

Applied Mathematics

March 15th (Mon)

Morning

09-01-0026
1 Ayaka Ishikawa (Yokohama Nat. Univ.) A family of graph quantum walks associated with the Sato zeta function ..... *

09-01-0007
2 Iwao Sato (Oyama Nat. Coll. of Tech.), Norio Konno (Yokohama Nat. Univ.), Takashi Komatsu (Univ. of Tokyo) Zeta functions with respect to general coined quantum walk of periodic graphs ..... *

09-01-0021
3 Takashi Komatsu (Univ. of Tokyo), Norio Konno (Yokohama Nat. Univ.), Iwao Sato (Oyama Nat. Coll. of Tech.) Relationship between the Grover walk and the generalized Ihara zeta function ..... *

09-01-0036
4 Sho Kubota (Yokohama Nat. Univ.), Hiroto Sekido (Yokohama Nat. Univ.), Harunobu Yata (Yokohama Nat. Univ.) Periodicity of a quantum walk defined by mixed cycles ..... *

09-01-0012
5 Chusei Kiumi (Yokohama Nat. Univ.), Kei Saito (Kanagawa Univ.) Time-averaged limit measures of two-phase quantum walks with one defect ..... *

09-01-0016
6 Takako Endo(Watanabe) (Yokohama Nat. Univ.) Eigenvalues of the discrete-time quantum walks in one dimension ..... *

09-01-0033
7 Akihiro Narimatsu (Yokohama Nat. Univ.), Masahiro Asano (Yokohama Nat. Univ.), Norio Konno (Yokohama Nat. Univ.) About the time-averaged limit measure of the Grover walk on the 2-dimensional lattice ..... *

09-01-0027
8 Takuto Naito (Yokohama Nat. Univ.), Chusei Kiumi (Yokohama Nat. Univ.), Norio Konno (Yokohama Nat. Univ.), Sarato Takahashi (Yokohama Nat. Univ.) Recommendation models based on walks ..... *

09-01-0025
9 Ryota Hanaoka (Yokohama Nat. Univ.), Norio Konno (Yokohama Nat. Univ.) Return probability and evolution of the Riesz walk ..... *

March 16th (Tue)

9:30–10:45

09-01-0029
10 Shohei Satake (Kumamoto Univ.) Z On high-girth expander regular graphs of general degrees with localized eigenvectors 15

09-01-0020
11 Koji Imamura (Kumamoto Univ.), Keisuke Shiromoto (Kumamoto Univ.) Z Matroid representation over finite rings 10

09-01-0039
12 Hidefumi Ohsugi (Kwansei Gakuin Univ.), Akiyoshi Tsuchiya (Univ. of Tokyo) Z Symmetric edge polytopes and matching generating polynomials 15

09-01-0017
13 Yusuke Suzuki (Niigata Univ.), Hikari Shibuya (Niigata Univ.) Z The upper bounds on the size of bipartite and tripartite 1-embeddable graphs on surfaces 15

09-01-0005
14 Kiyoshi Ando (Nat. Inst. of Information) [z] Contractible edges and liftable vertices in a 4-connected graph 15

09-01-0010
15 Masato Kobayashi (Kanagawa Univ.) q-determinant, q-Vandermonde and signed bigrassmannian polynomials ..... *

09-01-0022
16 Diogo Kendy Matsumoto (Teikyo Univ. of Sci.) An algebraic characterization of complete bipartite graphs ..... *

09-01-0003
17 Robert E. L. Aldred (Univ. of Otago), Jun Fujisawa (Keio Univ.) Generalization of the matching extension problem in graphs on surfaces ..... *

09-01-0009
18 Shinya Fujita (Yokohama City Univ.), Boram Park (Ajou Univ.) The optimal proper connection number of a graph with given independence number ..... *

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

09-02-0001
Yoshio Sano (Univ. of Tsukuba) [z] Matroidal structures on partially ordered sets and related topics

13:30–13:50 Presentation Ceremony for the 2020 MSJ Prize for Excellent Young Applied Mathematicians

March 17th (Wed)

9:40–10:45

09-01-0028
19 Aoi Honda (Kyushu Inst. of Tech.) [z], Masayuki Itabashi (Kyushu Inst. of Tech.), Simon James (Deakin Univ.) Model interpretability of Moebius type inclusion-exclusion integral neural networks 15

09-01-0001
20 Hidenori Ogata (Univ. of Electro-Comm.) [z] Method of fundamental solutions for doubly-periodic potential flow and its invariance under unimodular transforms 15

09-01-0035
21 Takuya Tsuchiya (Hachinohe Inst. of Tech.) [z], Ryosuke Urakawa, Gen Yoneda (Waseda Univ.) Hi-precision numerical simulations of Einstein equations for gravitational collapse 15

09-01-0011
22 Hiroshi Fujiwara (Kyoto Univ.) [z] Regularization for x-ray computerized tomography as the inverse source problem 15

09-01-0032
23 Itsuki Watanabe (Waseda Univ.) Deterministic and stochastic models of nonlocal diffusion on inhomogeneous network ..... *

09-01-0002
24 Satoru Iwasaki (Osaka Univ.), Atsushi Yagi (Osaka Univ.*) Asymptotic convergence of solutions of Laplace reaction-diffusion equations ..... *

09-01-0008
25 Hiroshi Ishii (Hokkaido Univ.), Shin-Ichiro Ei (Hokkaido Univ.) Interaction of front solutions for nonlocal reaction diffusion equation ..... *

09-01-0031
26 Shin-Ichiro Ei (Hokkaido Univ.), Haruki Shimatani (Hokkaido Univ.), Ken Mitsuzono (Hokkaido Univ.) The dynamics of a pulse solution for reaction diffusion systems in multiple half-lines with a junction ..... *

09-01-0006
27 Takashi Teramoto (Asahikawa Medical Univ.), Peter van Heijster (Queensland Univ. of Tech./Wageningen Univ. and Res.) Traveling two pulse solutions in a three-component FitzHugh–Nagumo model ..... *

09-01-0019
28 Yoshitaka Watanabe (Kyushu Univ.)
Takehiko Kinoshita (Saga Univ.)
Mitsuhiro T. Nakao (Waseda Univ.)
An improvement of constructive error estimation of approximate solution for biharmonic problems ..... *

09-01-0024
29 Syunsuke Kobayashi (Kyoto Univ./RIKEN)
Shigetoshi Yazaki (Meiji Univ.)
Finite difference discretization for the Kuramoto–Sivashinsky equation on expanding circle solution ..... *

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

09-02-0002
Kohei Nakajima (Univ. of Tokyo) Z
Physical reservoir computing: pursuing the nature of information processing

14:15–15:20

09-01-0013
30 Ippei Obayashi (RIKEN/Kyoto Univ./Tohoku Univ.) Z
Stable volumes for persistent homology 15

09-01-0043
31 Jonathan Jaquette (Boston Univ.) Z
Jean-Philippe Lessard (McGill Univ.)
Akitoshi Takayasu (Univ. of Tsukuba)
Global dynamics in a quadratic nonlinear Schrödinger equation 15

09-01-0004
32 Takashi Sakajo (Kyoto Univ.) Z
Bartosz Protas (McMaster Univ.)
On a family of rotating equilibria of vortex sheets 15

09-01-0018
33 Takaaki Nishida (Kyoto Univ.*) Z
Chun-Hsiung Hsia (Nat. Taiwan Univ.)
Routes to chaos in Rayleigh–Bénard heat convection 15

March 18th (Thu)

9:40–10:45

09-01-0023
34 Hideki Murakawa (Ryukoku Univ.) Z
Rhudaina M. Mohammad (Univ. of the Philippines Diliman)
Karel Svadlenka (Kyoto Univ.)
Hideru Togashi (Kobe Univ.)
A mathemtical model and a numerical method for the formation of epithelial tissues 15

09-01-0034
35 Masaharu Nagayama (Hokkaido Univ.) Z
Atsushi Mori (Hokkaido Univ.)
Mamoru Okamoto (Hokkaido Univ.)
On a mathematical modeling for a self-propelled material by volume conservation reaction-diffusion systems 15

09-01-0042
36 Jumpei Inoue (Waseda Univ.) Z
Kousuke Kuto (Waseda Univ.)
Impact of regional differences of recovery rates on the total population of infected in an SIS reaction diffusion model 15

09-01-0040
37 Hiroko Yamamoto (Univ. of Tokyo) Z
Ayuki Sekisaka (Meiji Univ.)
The Evans function for reaction-diffusion equations with nonlocal effects 15

09-01-0015
38 Hirotada Honda (Toyo Univ.)
Continuous limit of neural network-based multiclass classification ..... *

09-01-0030
39 Keiichi Ueda (Univ. of Toyama)
Application of autonomous pathfinding system to kinematics problems ..... *

09-01-0014
40 Akane Kawaharada (Kyoto Univ. of Edu.)
Singular function derived from Rule150 ..... *

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

09-02-0003
Yukihiko Nakata (Aoyama Gakuin Univ.) Z
Dynamics of delay differential equations from epidemic models

14:15–15:05

09-01-0038
41 Kei Nishi (Kyoto Sangyo Univ.) Z
Yasumasa Nishiura (Hokkaido Univ.)
Pulse bifurcations in a three-component FitzHugh–Nagumo system ··· 15

09-01-0041
42 Toshiyuki Ogawa (Meiji Univ.) Z
Shin-ichiro Ei (Hokkaido Univ.)
Hideo Ikeda (Univ. of Toyama)
Masayasu Mimura (Hiroshima Univ.)
Bifurcation of a non-trivial traveling wave solution in a 3-component competition-diffusion system ····· 15

09-01-0037
43 Masahiro Hiyoshi (Kanazawa Univ.) Z
Takafumi Yamazaki (Kanazawa Univ.)
Ken-Ichi Nakamura (Kanazawa Univ.)
Toshiko Ogiwara (Josai Univ.)
Propagation direction of bistable traveling waves for a 3-component Lotka–Volterra competition-diffusion system ····· 15

Topology

March 15th (Mon)

10:00–11:00

10-01-0014
1 Eri Matsudo (Nihon Univ.) Z
Kazuhiro Ichihara (Nihon Univ.)
Coloring links by symmetric group of order 3 10

10-01-0012
2 Ryuji Higa (Kobe Univ.) Z
Takuji Nakamura (Univ. of Yamanashi)
Yasutaka Nakanishi (Kobe Univ.)
Shin Satoh (Kobe Univ.)
The intersection polynomials of a virtual knot 10

10-01-0018
3 Motoo Tange (Univ. of Tsukuba) Z
The third term in lens surgery polynomials 15

10-01-0009
4 Nobutaka Asano (Tohoku Univ.) Z
4-manifolds admitting simplified (2, 0)-trisections with prescribed vertical 3-manifolds 15

10-01-0003
5 Keiji Tagami (Nat. Fisheries Univ.)
Naturality of the dualizable patterns obtained from annulus presentations of knots ..... ∗

10-01-0004
6 Masakazu Teragaito (Hiroshima Univ.)
Generalized torsion elements and hyperbolic links ..... ∗

10-01-0006
7 Toshiyuki Akita (Hokkaido Univ.)
The adjoint group of a Coxeter quandle ..... ∗

10-01-0010
8 Atsushi Ishii (Univ. of Tsukuba)
Tomo Murao (Waseda Univ.)
Twisted derivatives for multiple conjugation quandles ..... ∗

10-01-0007
9 Kanako Oshiro (Sophia Univ.)
Natsumi Oyamaguchi (Shumei Univ.)
Goeritz matrices and Dehn colorings of spatial graphs ..... ∗

10-01-0008
10 Takayuki Morifuji (Keio Univ.)
On simple Hurwitz groups and eta invariant ..... ∗

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

10-02-0002
Hokuto Konno (Univ. of Tokyo) Z
Gauge theory and diffeomorphism and homeomorphism groups

March 16th (Tue)

10:00–11:00

10-01-0002
11 Naoki Kitazawa (Kyushu Univ.) Z
Special generic maps and products of cohomology classes of manifolds admitting them 15

10-01-0013
12 Ramón Barral Lijó (Ritsumeikan Univ.) Z
Devaney's definition of chaos for foliated spaces 15

10-01-0019
13 Naohiko Kasuya (Kyoto Sangyo Univ.) Z
Daniele Zuddas (Univ. of Trieste)
Contact structure on the boundary of a strongly pseudoconcave complex surface 15

10-01-0011
14 Sachiko Saito (Hokkaido Univ. of Edu.) Z
Kosei Takashimizu (Hokkaido Univ. of Edu.)
Toric resolutions of germs of Newton non-degenerate mixed polynomials of strongly mixed weighted homogeneous face type 10

10-01-0001
15 Naoki Kitazawa (Kyushu Univ.)
Construction of explicit smooth functions on closed or open manifolds inducing given graphs as Reeb graphs ..... ∗

10-01-0016
16 Atsuhide Mori (Osaka Dent. Univ.)
On foliations by isochrones ..... ∗

10-01-0005
17 Taro Asuke (Univ. of Tokyo) On a characteristic class associated with deformations of foliations ··· ∗

10-01-0017
18 Shin Hayashi (Nat. Inst. of Adv. Industrial Sci. and Tech.) Classification of topological invariants related to corner states ····· ∗

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

10-02-0001
Naoki Fujita (Univ. of Tokyo) Z Newton–Okounkov bodies arising from cluster structures and associated toric degenerations

Infinite Analysis

March 17th (Wed)

10:30–12:00

11-01-0010
1 Takashi Imoto (Nat. Inst. of Adv. Industrial Sci. and Tech.) [z]
Jun Sato (Ochanomizu Univ.)
Tetsuo Deguchi (Ochanomizu Univ.)
The Bethe solutions in the two down-spin sector of the spin-1/2 massive XXZ spin chain ····· 15

11-01-0005
2 Shinsuke Iwao (Tokai Univ.) [z]
Free-fermionic presentation of stable Grothendieck polynomials ····· 15

11-01-0004
3 Tatsuki Kuwagaki (Osaka Univ.) [z]
Sheaf quantization from exact WKB analysis ····· 15

11-01-0006
4 Taichiro Takagi (Nat. Defense Acad. of Japan) [z]
Takuma Yoshikawa (Nat. Defense Acad. of Japan)
Geometric lifting of the integrable cellular automata with periodic boundary conditions ····· 15

11-01-0003
5 Akihito Yoneyama (Univ. of Tokyo) [z]
Tetrahedron and 3D reflection equation from PBW basis of the nilpotent subalgebra of quantum superalgebras ····· 15

14:15–15:15

11-01-0001
6 Kouichi Takemura (Ochanomizu Univ.) [z]
Shoko Sasaki (Chuo Univ.)
Shun Takagi (Chuo Univ.)
Initial-value space of q-Painlevé equation and q-Heun equation ····· 15

11-01-0002
7 Kouichi Takemura (Ochanomizu Univ.) [z]
Shoko Sasaki (Chuo Univ.)
Shun Takagi (Chuo Univ.)
q-middle convolution and q-Painlevé equation ····· 15

11-01-0008
8 Ryo Okawa (Kobe Univ.) [z]
Yutaka Yoshida (Univ. of Tokyo)
Wall-crossing for vortex partition function and handsaw quiver varierty ····· 15

11-01-0007
9 Takeo Kojima (Yamagata Univ.)
Quadratic relations of the deformed W-superalgebra $\mathcal{W}_{q,t}(\mathfrak{sl}(2|1))$ ···· ∗

March 18th (Thu)

10:00–11:00 Talk Invited by Infinite Analysis Special Session

11-02-0001
Genki Shibukawa (Kobe Univ.) [z]
Let's play multivariate special functions!

11:15–12:15 Talk Invited by Infinite Analysis Special Session

11-02-0002
Tomoyuki Takenawa (Tokyo Univ. of Marine Sci. and Tech.) [z]
Space of initial conditions and symmetries of higher-dimensional Painlevé systems