# 2016 Mathematical Society of Japan
# AUTUMN MEETING

**Dates**: September 15th (Thu)–18th (Sun), 2016

**Venue**: Senriyama Campus, Kansai University
3–3–35 Yamate-cho, Suita, Osaka 564-8680

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| | I | II | III | IV | V | VI | VII | VIII | IX |
|---|---|---|---|---|---|---|---|---|---|
| | Bldg. 3 1F 3101 | Bldg. 3 2F 3201 | Bldg. 3 4F 3401 | Bldg. 3 4F 3402 | Bldg. 4 B1F 4001 | Bldg. 4 B1F 4002 | Bldg. 4 2F 4201 | Bldg. 4 2F 4202 | Bldg. 4 3F 4301 |
| **15th (Thu)** | Algebra 9:30–11:45 14:15–15:45 | Functional Equations 9:15–12:00 14:15–16:15 | Topology 9:50–12:00 15:30–17:20 | Functional Analysis 14:15–16:15 | Applied Mathematics 10:00–12:00 14:15–15:30 | Infinite Analysis 10:15–12:00 14:15–15:15 | Statistics and Probability 9:15–12:00 14:15–15:00 | Complex Analysis 9:00–11:45 14:15–16:55 | Geometry 9:30–11:40 14:15–15:40 |
| | Featured Invited Talks 13:00–14:00 | | | | | | | | |
| | Invited Talk 16:00–17:00 | Invited Talk 16:30–17:30 | Invited Talk 14:15–15:15 | Invited Talk 16:30–17:30 | Invited Talk 16:30–17:30 | Invited Talk 15:30–16:30 | Invited Talks 15:15–16:15 16:30–17:30 | Invited Talk 17:00–18:00 | Invited Talks 15:50–16:50 17:00–18:00 |
| **16th (Fri)** | Algebra 9:20–12:00 Invited Talk 13:00–14:00 | Functional Equations 9:00–12:00 Invited Talk 13:00–14:00 | | Functional Analysis 9:15–12:00 Invited Talk 13:00–14:00 | Applied Mathematics 10:00–11:30 13:15–14:00 | Infinite Analysis 10:15–11:45 Invited Talk 13:00–14:00 | Statistics and Probability 9:00–11:40 | Complex Analysis 9:30–11:45 Invited Talk 13:00–14:00 | Geometry 9:30–10:00 Invited Talks 10:30–11:30 13:00–14:00 |

MSJ Prizes Presentation (BIG Hall 100) · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · (14:30–15:00)
Plenary Talks (BIG Hall 100) MSJ Autumn Prize Winner · · · · · · · · · · · · · · · · · · (15:10–16:10)
Shigefumi Mori (Kyoto Univ.) · · · · · · · · · · · · · · · (16:25–17:25)
Official Party (Mediapark "RINPUKAN") · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · (18:00–20:00)

| | I | II | III | IV | V | VI | VII | VIII | IX |
|---|---|---|---|---|---|---|---|---|---|
| **17th (Sat)** | Algebra 9:20–11:15 14:20–15:15 | Functional Equations 9:15–12:00 14:15–16:15 | Topology 9:50–12:00 15:30–17:15 | Functional Analysis 9:15–12:00 14:15–16:15 | Applied Mathematics 10:00–11:35 14:15–15:30 | Real Analysis 9:30–11:45 14:15–16:00 | Statistics and Probability 9:15–12:00 14:15–15:00 | Found. of Math. and History of Math. 9:30–11:20 14:15–16:00 | Geometry 9:30–11:40 14:15–16:50 |
| | Featured Invited Talks 13:00–14:00 | | | | | | | | |
| | Invited Talks 15:30–16:30 16:40–17:40 | Invited Talk 16:30–17:30 | Invited Talk 14:15–15:15 | Invited Talk 16:30–17:30 | Invited Talk 15:50–16:50 | Invited Talk 16:20–17:20 | Invited Talks 15:15–16:15 16:30–17:30 | Invited Talk 16:15–17:15 | Invited Talk 17:00–18:00 |
| **18th (Sun)** | Algebra 9:30–11:45 14:15–15:45 | Functional Equations 9:15–12:00 14:15–16:15 | Topology 9:50–12:00 | | Applied Mathematics 10:00–12:00 14:15–16:05 | Real Analysis 9:30–12:00 14:15–15:15 | Statistics and Probability 9:15–12:00 | Found. of Math. and History of Math. 9:30–11:20 14:15–16:00 | |
| | Featured Invited Talks 13:00–14:00 | | | | | | | | |
| | | Invited Talk 16:30–17:30 | | | Invited Talk 16:30–17:30 | Invited Talk 15:30–16:30 | | | |

# Plenary Talks

September 16th (Fri)   BIG Hall 100

MSJ Autumn Prize Winner ·················································· (15:10–16:10)

70th Anniversary Lecture

Shigefumi Mori          Rational curves on algebraic varieties —minimal models and
   (Kyoto Univ. / Kyoto Univ.)    extremal rays— ···································· (16:25–17:25)

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# Featured Invited Talks

September 15th (Thu)

**Conference Room II**

Guest Talk from Taiwan Mathematical Society

Tai-Chia Lin (Nat. Taiwan Univ.)    Analysis of Poisson–Nernst–Planck type equations and its
                                    applications ········································· (13:00–14:00)

**Conference Room VII**

70th Anniversary Lecture

Takashi Kumagai (Kyoto Univ.)    Anomalous diffusions on disordered media ·············· (13:00–14:00)

**Conference Room IX**

70th Anniversary Lecture

Kenji Fukaya                     Present status of the proof of homological Mirror symmetry
(Simons Center for Geometry and Physics, SUNY)    ···················································· (13:00–14:00)

September 17th (Sat)

**Conference Room I**

70th Anniversary Lecture

Toshiyuki Kobayashi              Birth of new branching problems ····················· (13:00–14:00)
(Univ. of Tokyo / Univ. of Tokyo)

**Conference Room IX**

70th Anniversary Lecture

Tohru Eguchi    (Rikkyo Univ.)    String theory and moonshine phenomenon ············· (13:00–14:00)

September 18th (Sun)

**Conference Room I**

70th Anniversary Lecture

Kazuya Kato (Univ. of Chicago)[♭]   On recent developments in Number Theory ············· (13:00–14:00)

## Conference Room II

70th Anniversary Lecture

Hitoshi Ishii    (Waseda Univ.)    Viscosity solutions and asymptotic problems $\cdots\cdots\cdots\cdots\cdots$    (13:00–14:00)

# Talks Invited by Research Sections and Special Session

## September 15th (Thu)

**Algebra** (Conference Room I)

| Satoshi Naito | (Tokyo Tech) | Character formula for Demazure submodules of level-zero extremal weight modules and a specialization of Macdonald polynomials $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (16:00–17:00) |

**Geometry** (Conference Room IX)

| Kei Kondo | (Yamaguchi Univ.) | Non-smooth analysis and differentiable sphere theorems $\cdots$ | (15:50–16:50) |
| Nicola Gigli | (SISSA) | Nonsmooth differential geometry $\cdots\cdots\cdots\cdots\cdots\cdots$ | (17:00–18:00) |

**Complex Analysis** (Conference Room VIII)

| Yu Kawakami | (Kanazawa Univ.) | Geometric interpretation of value-distribution-theoretic property for the Gauss map of complete minimal surfaces $\cdots\cdots$ | (17:00–18:00) |

**Functional Equations** (Conference Room II)

| Tomoyuki Tanigawa | (Kumamoto Univ.) | Regular variation and asymptotic behavior of solutions of differential equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (16:30–17:30) |

**Functional Analysis** (Conference Room IV)

| Susumu Yamazaki | (Nihon Univ.) | Pseudodifferential operators of infinite order and symbols in the analytic category $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (16:30–17:30) |

**Statistics and Probability** (Conference Room VII)

| Xiang-Dong Li (AMSS, Chinese Acad. of Sci.) | | W-entropy formulas on super Ricci flows and Langevin deformation on Wasserstein space over Riemannian manifolds $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (15:15–16:15) |
| Naoki Kubota | (Nihon Univ.) | Large deviation principle for random walks in random environments and Lyapunov exponents $\cdots\cdots\cdots\cdots\cdots$ | (16:30–17:30) |

**Applied Mathematics** (Conference Room V)

| Chie Nara | (Meiji Univ.) | Kelvin's conjecture and space-fillers with minimal surface area —Unfolding of doubly covered polyhedra and soap film experiments— $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (16:30–17:30) |

**Topology** (Conference Room III)

| Hisaaki Endo | (Tokyo Tech) | Topology of Lefschetz fibrations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (14:15–15:15) |

**Infinite Analysis** (Conference Room VI)

| Kohei Motegi (Tokyo Univ. of Marine Sci. and Tech.) | | Partition functions of integrable lattice models and symmetric polynomials $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (15:30–16:30) |

## September 16th (Fri)

**Algebra** (Conference Room I)

| Yoshiyuki Kimura | (Kobe Univ.) | Quantum unipotent subgroups and dual canonical bases $\cdots$ | (13:00–14:00) |

4    Talks Invited by Research Sections and Special Session

**Geometry and Topology** (Conference Room IX)

Award Lecture for the 2016 MSJ Geometry Prize

Teruhiko Soma (Tokyo Metro. Univ.)    Geometry and topology of irreducible 3-manifolds ········    (10:30–11:30)

Award Lecture for the 2016 MSJ Geometry Prize

Shigeharu Takayama (Univ. of Tokyo)    Complex geometry of the canonical bundle ··············    (13:00–14:00)

**Complex Analysis** (Conference Room VIII)

Shin-ichi Matsumura (Tohoku Univ.)    On generalizations of the Kodaira vanishing theorem by transcendental methods ·································    (13:00–14:00)

**Functional Equations** (Conference Room II)

Toru Wakasa (Kyushu Inst. of Tech.)    Linearized eigenvalue problems associated with 1 dimensional front/pulse type steady states ························    (13:00–14:00)

**Functional Analysis** (Conference Room IV)

Shuhei Wada
(Kisarazu Nat. Coll. of Tech.)    Topics in the theory of operator monotone functions ······    (13:00–14:00)

**Infinite Analysis** (Conference Room VI)

Tatsuyuki Hikita (Kyoto Univ.)$^\flat$    On the cohomology of conical symplectic resolutions ······    (13:00–14:00)

## September 17th (Sat)

**Foundation of Mathematics and History of Mathematics** (Conference Room VIII)

Taishi Kurahashi
(Kisarazu Nat. Coll. of Tech.)    On the incompleteness theorems and provability predicates ·················································    (16:15–17:15)

**Algebra** (Conference Room I)

Takuya Yamauchi (Tohoku Univ.)    Serre conjecture for GSp4 and weight reduction theorem ··    (15:30–16:30)

Takeshi Saito  (Univ. of Tokyo)$^\flat$    Characteristic cycle of an $\ell$-adic sheaf ···················    (16:40–17:40)

**Geometry** (Conference Room IX)

Satoshi Ishiwata (Yamagata Univ.)    Heat kernel estimates on connected sums ················    (17:00–18:00)

**Functional Equations** (Conference Room II)

Atsuhide Ishida (Tokyo Univ. of Sci.)$^\flat$    Direct and inverse problems of quantum scattering in time-dependent electric fields ···························    (16:30–17:30)

**Real Analysis** (Conference Room VI)

Akihiko Miyachi
(Tokyo Woman's Christian Univ.)    Hardy space estimates for multidimensional Hausdorff operators ·················································    (16:20–17:20)

**Functional Analysis** (Conference Room IV)

Yoshiki Oshima (Univ. of Tokyo)$^*$    Unitary representations of real reductive Lie groups and orbit method ·················································    (16:30–17:30)

5    Talks Invited by Research Sections and Special Session

**Statistics and Probability** (Conference Room Ⅶ)

| | | |
|---|---|---|
| Nobumichi Shutoh (Kobe Univ.) | Linear discriminant analysis and some tests based on monotone missing data $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (15:15–16:15) |
| Teppei Ogihara (Inst. of Stat. Math. / JST PRESTO) | Statistical analysis for diffusion processes with noisy, nonsynchronous observations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (16:30–17:30) |

**Applied Mathematics** (Conference Room V)

| | | |
|---|---|---|
| Ichiro Hasuo (Univ. of Tokyo) | Modern abstract mathematics at work: Category theory and logic disentangling complex structures in computer systems $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (15:50–16:50) |

**Topology** (Conference Room Ⅲ)

| | | |
|---|---|---|
| John Parker (Univ. of Duhram) | Non-arithmetic lattices $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (14:15–15:15) |

## September 18th (Sun)

**Functional Equations** (Conference Room Ⅱ)

| | | |
|---|---|---|
| Masaya Maeda (Chiba Univ.) | On orbital instability of excited states of nonlinear Schrödinger equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (16:30–17:30) |

**Real Analysis** (Conference Room Ⅵ)

| | | |
|---|---|---|
| Hiroshi Matsuzawa (Numazu Nat. Coll. of Tech.) | Spreading speed and asymptotic profile of the free boundary problems of nonlinear diffusion equations $\cdots\cdots\cdots\cdots\cdots\cdots$ | (15:30–16:30) |

**Applied Mathematics** (Conference Room V)

| | | |
|---|---|---|
| Takahito Kashiwabara (Univ. of Tokyo) | On $L^{\infty}$-type error estimates and discrete Green's functions in the finite element method $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ | (16:30–17:30) |

# Foundation of Mathematics and History of Mathematics

## September 17th (Sat)  Conference Room VIII

### 9:30–11:20

1 Makoto Tamura (Osaka Sangyo Univ.) Indeterminate equation in "Shu" housed at Yuelu Academy $\cdots\cdots\cdots$ 15

2 Shunzi Horiguchi
(Niigata Sangyo Univ.) Handwriting analysis of Chinese characters in the Koutaku Hosoi work Hiden Chiiki Zuhou Daizensyo and Koutaku Hosoi autograph 1000 characters of ten bodies $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

3 Mitsuo Morimoto
(Yokkaichi Univ./Sophia Univ.$^\star$) Volume 12 (Geometric Quantities) of the *Taisei Sankei* and the *Tetsujutsu Sankei* $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

4 Shigeru Jochi (Osaka Kyoiku Univ.) The evaluation of the questions on the mathematical votive tablets by AIDA Yasuaki $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

5 Shigeru Masuda
(Res. Workshop of Classical Fluid Dynamics) The contributions by Lagrange, Laplace and Legendre to the mathematical ground of heat theory $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

6 Shigeru Masuda
(Res. Workshop of Classical Fluid Dynamics) The mathematical digressions in the heat theories come from Fourier and Poisson $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

### 11:30–12:00  Mathematics History Team Meeting

### 14:15–16:00

7 Shotaro Tanaka Representations of $k^p$ and $\Sigma^k n^p$ by suida $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

8 Ken Saito  (Osaka Pref. Univ.) Syntactic analysis of the whole text of Euclid's *Elements* $\cdots\cdots\cdots\cdots$ 15

9 Michiyo Nakane Algebra and analysis vs. algebraic analysis in 18th century $\cdots\cdots\cdots\cdots$ 15

10 Yoshihiro Abe (Kanagawa Univ.) The extent of the ideals over $\mathcal{P}_\kappa\lambda$ below the bounded ideal in the Rudin–Keisler ordering $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

11 Teruyuki Yorioka (Shizuoka Univ.) Properties of ccc forcings related to von Neumann's problem on measure algebras $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

12 Toshimichi Usuba (Waseda Univ.) Set-theoretic geology without AC $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

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

Taishi Kurahashi On the incompleteness theorems and provability predicates
(Kisarazu Nat. Coll. of Tech.)

## September 18th (Sun)  Conference Room VIII

### 9:30–11:20

13 Takashi Oyabu $^\flat$ The mathematical principle of the natural philosophy $\cdots\cdots\cdots\cdots\cdots$ 5

14 Nobu-Yuki Suzuki (Shizuoka Univ.) Weak variants of disjunction and existence properties in intermediate predicate logics $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

15 Kyohei Yokomizo (Nihon Univ.) A Separable Axiomatization of the Gabbay–de Jongh Logics $\cdots\cdots\cdots$ 15

16 Tatsuya Shimura (Nihon Univ.) An example of formulas with a strong form of disjunction property
$\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

17   Ryo Kashima      (Tokyo Tech)   On intuitionistic (and intermediate) second order propositional logics $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

18   Koichiro Ikeda    (Hosei Univ.)   A remark on full amalgamation property $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

19   Akito Tsuboi (Univ. of Tsukuba)   Uncountable $\omega$-categorical theories $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
     Makoto Yanagawa (Univ. of Tsukuba)

**11:30–12:00    Research Section Assembly**

**14:15–16:00**

20   Toshio Suzuki (Tokyo Metro. Univ.)   Separation of parallel advice and serial advice on real-time deterministic context-free languages $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

21   Kenshi Miyabe      (Meiji Univ.)   On computability of reals on the space where the triangle inequality does not hold $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

22   Kohtaro Tadaki (Chubu Univ.)   An operational characterization of the notion of probability by algorithmic randomness III $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

23   Kenetsu Fujita (Gunma Univ.)   On the Church–Rosser theorem $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

24   Satoru Kuroda                   A formal system of Sprague–Grundy theory $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     (Gunma Pref. Women's Univ.)

25   Keita Yokoyama      (JAIST)   On the proof-theoretic strength of Ramsey's theorem for pairs $\cdots\cdots\cdots$ 15

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# Algebra

## September 15th (Thu)      Conference Room I

**9:30–11:45**

1   Hideto Asashiba (Shizuoka Univ.)   Decomposition theory of modules: the case of Kronecker algebra $\cdots\cdots$ 15
    Ken Nakashima (Shizuoka Univ.)
    Michio Yoshiwaki
    (Shizuoka Univ. / Osaka City Univ.)

2   Kenta Ueyama (Hirosaki Univ.)   Graded endomorphism algebras of cluster tilting modules $\cdots\cdots\cdots\cdots$ 10

3   Yuta Kozakai (Tokyo Univ. of Sci.)   On two-sided tilting complexes for Brauer tree algebras $\cdots\cdots\cdots\cdots\cdots$ 10
    Naoko Kunugi (Tokyo Univ. of Sci.)

4   Sota Asai        (Nagoya Univ.)   bricks and 2-term simple-minded collections $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

5   Shigeto Kawata (Osaka City Univ.) *   Auslander–Reiten components and vertecies for group rings $\cdots\cdots\cdots\cdots$ 10

6   Kenichi Shimizu                  Indicators of finite tensor categories $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
    (Shibaura Inst. of Tech.)

7   Hideto Asashiba (Shizuoka Univ.)   Quiver presentations of smash products of categories and coverings of Brauer graph algebras $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

8   Hideto Asashiba (Shizuoka Univ.)   A simple application of a 2-categorical covering theory to a construction of triangulated orbit categories $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

**14:15–15:45**

9   Yoshitomo Baba (Osaka Kyoiku Univ.)    On $i$-pairs of two-sided Harada rings $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

10   Yugen Takegahara    Multiplicative induction for monomial Burnside rings $\cdots\cdots\cdots\cdots\cdots$ 15
      (Muroran Inst. of Tech.)

11   Shuhei Kamioka (Kyoto Univ.)    Product formulae for skew plane partitions and the discrete two-dimensional Toda molecule $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

12   Naoki Genra    (Kyoto Univ.)    Screening operators for W-algebras $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

13   Shunsuke Tsuchioka (Univ. of Tokyo)    On a general Schur partition theorem $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
      Masaki Watanabe (Univ. of Tokyo)

**16:00–17:00   Talk Invited by Algebra Section**

Satoshi Naito    (Tokyo Tech)    Character formula for Demazure submodules of level-zero extremal weight modules and a specialization of Macdonald polynomials

<div align="center">

September 16th (Fri)    Conference Room I

</div>

**9:20–12:00**

14   Haruhisa Nakajima    *    Pseudo-reflections of stable regular actions of finite central extensions
      (J. F. Oberlin Univ.)    of algebraic tori in free characteristics $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

15   Akiyoshi Tsuchiya (Osaka Univ.)    On the sign patterns of the coefficients of Hilbert polynomials $\cdots\cdots\cdot$ 10

16   Akiyoshi Tsuchiya (Osaka Univ.)    Flat $\delta$-vectors and their Ehrhart polynomials $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
      Takayuki Hibi    (Osaka Univ.)

17   Akihiro Higashitani    Non-level semi-standard graded Cohen–Macaulay domains with $h$-vectors
      (Kyoto Sangyo Univ.)    $(h_0, h_1, h_2)$ $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
      Kohji Yanagawa (Kansai Univ.)

18   Kazunori Matsuda (Osaka Univ.) *    Toric rings and ideals of stable set polytopes $\cdots\cdots\cdots\cdots\cdots\cdots$ 15
      Hidefumi Ohsugi
      (Kwansei Gakuin Univ.)
      Kazuki Shibata (Rikkyo Univ.)

19   Ryota Okazaki (Fukuoka Univ. of Edu.)    On construction of $\mathbb{Z}$-graded finite free resolutions of finitely generated $\mathbb{Z}$-graded modules over a polynomial ring $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

20   Tadahito Harima (Niigata Univ.) *    The EGH conjecture and the Sperner property of complete intersections
      Akihito Wachi (Hokkaido Univ. of Edu.)    $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
      Junzo Watanabe (Tokai Univ.$^\star$)

21   Akihito Wachi (Hokkaido Univ. of Edu.)    The Strong Lefschetz property of zero-dimensional complete intersection
      Tadahito Harima (Niigata Univ.)    with the action of the symmetric group $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
      Junzo Watanabe (Tokai Univ.$^\star$)

22   Futoshi Hayasaka    *    A formula for the associated Buchsbaum–Rim multiplicity of a direct
      (Hokkaido Univ. of Edu.)    sum of cyclic modules $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

23   Hiraku Kawanoue (Kyoto Univ.)$^\flat$    On embedded resolution for surfaces $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

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

Yoshiyuki Kimura (Kobe Univ.)    Quantum unipotent subgroups and dual canonical bases

<div align="center">September 17th (Sat)      Conference Room I</div>

**9:20–11:15**

24    Shigeru Iitaka (Gakushuin Univ.[⋆])    On Euler's perfect numbers  · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  10

25    Genki Shibukawa (Osaka Univ.)    Modified higher order Fibonacci and Lucas numbers · · · · · · · · · · · · · ·  10

26    Takao Komatsu (Wuhan Univ.)    Incomplete multi-poly-Bernoulli numbers  · · · · · · · · · · · · · · · · · · · · · · · ·  15

27    Yoshitaka Sasaki    On sum formula for generalized poly-Bernoulli numbers · · · · · · · · · · · ·  10
      (Osaka Univ. of Health and Sport Sci.)
      Ohno Yasuo    (Tohoku Univ.)

28    Kazuhito Kozuka    [⋆]    On power sums for lattice points in certain rational polytopes and
      (Miyakonojo Nat. Coll. of Tech.)    multiple Dedekind sums  · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  15

29    Takashi Miyagawa (Nagoya Univ.)[⋆]    Mean values of the Barnes zeta-function  · · · · · · · · · · · · · · · · · · · · · · · ·  10

30    Makoto Minamide (Yamaguchi Univ.)[⋆]    On the approximate functional equation for $\zeta'(s)^2$ · · · · · · · · · · · · · · · ·  10
      Jun Furuya
      (Hamamatsu Univ. School of Medicine)
      Yoshio Tanigawa

31    Maki Nakasuji    (Sophia Univ.)    Jacobi–Trudi type formula for Schur multiple zeta functions · · · · · · · · ·  10
      Ouamporn Phuksuwan(
            (Chulalongkorn Univ.)

**11:30–12:00    Research Section Assembly**

**14:20–15:15**

32    Fumitake Hyodo    Formal power series of Hecke rings associated with some Lie algebras
      (Kawasaki Univ. of Med. Welfare)    · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  15

33    Yuichi Shimada (Nagoya Univ.)    Modularity lifting and Oda's conjecture for Hilbert modular varieties
      · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  10

34    Hiroyasu Miyazaki (Univ. of Tokyo)    An invariance property of higher Chow groups with modulus and its
      applications · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  15

**15:30–16:30    Talk Invited by Algebra Section**

   Takuya Yamauchi (Tohoku Univ.)    Serre conjecture for GSp4 and weight reduction theorem

**16:40–17:40    Talk Invited by Algebra Section**

   Takeshi Saito  (Univ. of Tokyo)[♭]    Characteristic cycle of an $\ell$-adic sheaf

<div align="center">September 18th (Sun)      Conference Room I</div>

**9:30–11:45**

35    Tomohiro Iwami (Kyushu Inst. of Tech.)[⋆]    Construction of deformation family of semistable extremal neighbor-
      hoods via framed form fans · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  15

36    Khulan Tumenbayar    Examples of Zariski pairs for arrangements of line-conic-irreducible with
      (Tokyo Metro. Univ.)    2 nodes and 1 cusp · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  15

37    Hirokazu Nasu    (Tokai Univ.)    Obstructions to deforming curves lying on a $K3$ surface in a Fano 3-fold
      · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·  15

38   Kiwamu Watanabe (Saitama Univ.) * A characterization of symplectic Grassmanianns $\cdots\cdots\cdots\cdots\cdots\cdots$ 15

39   Ryo Kawaguchi (Nara Medical Univ.)   The volume of integral convex polytopes and the sectional genus of polarized varieties $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

40   Sho Ejiri        (Univ. of Tokyo)   Positivity of anti-canonical divisors and $F$-purity of fibers $\cdots\cdots\cdots\cdots$ 15

41   Sachio Ohkawa (Univ. of Tokyo)   On log Cartier transform of higher level $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

**14:15–15:45**

42   Kazunori Nakamoto        ♭   Two-dimensional traceless representations in characteristic 2 $\cdots\cdots\cdots$ 15
        (Univ. of Yamanashi)

43   Wahei Hara     (Waseda Univ.)   Rouquier dimension and Orlov spectrum of singular varieties $\cdots\cdots\cdots$ 15

44   Kohei Kikuta     (Osaka Univ.)   On categorical entropy of triangulated categories $\cdots\cdots\cdots\cdots\cdots\cdots$ 15

45   Yoshifumi Tsuchimoto (Kochi Univ.)   Dolbeault complex of non commutative projective varieties $\cdots\cdots\cdots\cdots$ 15

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# Geometry

## September 15th (Thu)    Conference Room IX

**9:30–11:40**

1   Keita Kunikawa (Nagoya Univ.) ♭   Rigidity of eternal solutions to Lagrangian mean curvature flow $\cdots\cdots$ 15

2   Naoyuki Koike (Tokyo Univ. of Sci.)   Long time behavior of the volume-preserving mean curvature flow for tubes in rank one symmetric spaces of non-compact type $\cdots\cdots\cdots\cdots$ 15

3   Hiroshi Konno     (Meiji Univ.)   Examples of Lagrangian mean curvature flows via torus actions $\cdots\cdots$ 15

4   Ryosuke Takahashi (Tohoku Univ.)   Bergman iteration and $C^\infty$-convergence towards Kähler–Ricci flow $\cdots$ 10

5   Masaya Kawamura        On the non-existence of static pluriclosed metrics on non-Kähler minimal complex surfaces $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
        (Tokyo Metro. Univ.)

6   Ryosuke Nomura (Univ. of Tokyo)   Blow-up behavior of the scalar curvature along the conical Kähler–Ricci flow $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

7   Ryosuke Nomura (Univ. of Tokyo)   Schwarz lemma for cone metrics $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

8   Takumi Yokota   (Kyoto Univ.)   Convex functions and $p$-barycenter on CAT(1)-spaces of small radii $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

**14:15–15:40**

9   Homare Tadano (Osaka Univ.)   Remark on lower diameter bounds for compact Ricci solitons $\cdots\cdots\cdots$ 15

10   Homare Tadano (Osaka Univ.)   Some Ambrose and Galloway type theorems via Bakry–Émery and modified Ricci curvatures $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

11   Homare Tadano (Osaka Univ.)   Diameter bounds, gap theorems and Hitchin–Thorpe inequalities for compact quasi-Einstein manifolds $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

12   Youhei Sakurai (Univ. of Tsukuba)   Rigidity phenomena in manifolds with boundary under a lower weighted Ricci curvature bound $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

13   Nobuhiro Innami (Niigata Univ.)   Parallel axiom and differentiability of Busemann functions $\cdots\cdots\cdots\cdots$ 15

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

Kei Kondo  (Yamaguchi Univ.)    Non-smooth analysis and differentiable sphere theorems

**17:00–18:00   Talk Invited by Geometry Section**

Nicola Gigli            (SISSA)    Nonsmooth differential geometry

## September 16th (Fri)     Conference Room IX

**9:30–10:00**

14  Yuuji Tanaka    (Nagoya Univ.)    A construction of $Spin(7)$-instantons $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

15  Kazushi Kobayashi (Chiba Univ.)    On the structure of exact triangles consisting of holomorphic vector bundles on high dimensional complex tori $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

**10:10–10:25   Presentation Ceremony for the 2016 MSJ Geometry Prize**

**10:30–11:30   Award Lecture for the 2016 MSJ Geometry Prize**

Teruhiko Soma (Tokyo Metro. Univ.)    Geometry and topology of irreducible 3-manifolds

**13:00–14:00   Award Lecture for the 2016 MSJ Geometry Prize**

Shigeharu Takayama (Univ. of Tokyo)    Complex geometry of the canonical bundle

## September 17th (Sat)     Conference Room IX

**9:30–11:40**

16  <u>Saburou Saitoh</u>            *  Division by zero z/0=0 in Euclidean spaces $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
(Gunma Univ.*/Inst. of Reproducing Kernels)
Hiroshi Michiwaki (NejiLaw Inc.)
Hiroshi Okumura (Yamato Univ.)

17  <u>Saburou Saitoh</u>            *  Matrices and division by zero z/0=0 $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
(Gunma Univ.*/Inst. of Reproducing Kernels)
Tsutomu Matsuura (Gunma Univ.)

18  Udo Hertrich-Jeromin        *  Minimal Darboux transformations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
            (Vienna Univ. of Tech.)
<u>Atsufumi Honda</u>
(Miyakonojo Nat. Coll. of Tech.)

19  <u>Yuta Ogata</u>        (Kobe Univ.)    Duality between cuspidal butterflies and cuspidal $S_1$ singularities on
Keisuke Teramoto (Kobe Univ.)    maxfaces $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

20  Katsuhiro Moriya (Univ. of Tsukuba)    The Weierstrass representation for surfaces in Euclidean space of arbitrary dimension $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

21  Kazuyuki Hasegawa (Kanazawa Univ.)    A quaternionic invariant for an inclusive immersion $\cdots\cdots\cdots\cdots\cdots$ 10

22  Kazuyuki Hasegawa (Kanazawa Univ.)    A quaternionic Willmore immersion $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

23  Kouhei Miura (Tokyo Univ. of Sci.)    Superextremal spacelike surfaces in a pseudo-Riemannian space form and a characterization of Boruvka hyperbolic planes $\cdots\cdots\cdots\cdots\cdots$ 10

24  <u>Qing Song Shi</u> (Nagoya Inst. of Tech.)*  Comparison theorems on trajectory-harps $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
Toshiaki Adachi (Nagoya Inst. of Tech.)

**14:15–16:50**

25   Yuichiro Taketomi (Hiroshima Univ.)    On a Riemannian submanifold whose slice representation has no nonzero fixed point $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

26   <u>Kotaro Kawai</u> (Univ. of Tokyo)    Frölicher–Nijenhuis bracket and geometry of $G_2$-and Spin(7)-manifolds
     Hông Vân Lê          (CAS)    $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     Lorenz Schwachhöfer (TU Dortmund)

27   <u>Akira Kubo</u> (Hiroshima Shudo Univ.)    Totally geodesic complex curves in Hermitian symmetric spaces $\cdots\cdots$ 15
     Takayuki Okuda (Hiroshima Univ.)
     Hiroshi Tamaru (Hiroshima Univ.)

28   <u>Shinji Ohno</u> (Osaka City Univ.)    A construction of biharmonic homogeneous hypersurfaces in compact
     Takashi Sakai (Tokyo Metro. Univ.)    Lie groups $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     Hajime Urakawa (Tohoku Univ.[*])

29   Makiko Tanaka (Tokyo Univ. of Sci.)    Maximal antipodal subgroups of the automorphism groups of classical
     <u>Hiroyuki Tasaki</u> (Univ. of Tsukuba)    compact Lie algebras $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

30   Makiko Tanaka (Tokyo Univ. of Sci.)    Maximal antipodal subgroups of the compact Lie group $G_2$ of excep-
     Hiroyuki Tasaki (Univ. of Tsukuba)    tional type $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     <u>Osami Yasukura</u> (Univ. of Fukui)

31   Kurando Baba (Tokyo Univ. of Sci.)    A duality between semisimple pseudo-Riemannian symmetric pairs and
     Osamu Ikawa (Kyoto Inst. Tech.)    compact symmetric triads $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     <u>Atsumu Sasaki</u>    (Tokai Univ.)

32   <u>Kurando Baba</u> (Tokyo Univ. of Sci.)    An alternative proof for semisimple pseudo-Riemannian symmetric pairs
     Osamu Ikawa (Kyoto Inst. Tech.)    from the viewpoint of compact symmetric triads $\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     Atsumu Sasaki    (Tokai Univ.)

33   <u>Oleksii Leontiev</u> (Univ. of Tokyo)[♭]    Symmetry breaking operators of indefinite orthogonal groups $O(p,q)$
     Kobayashi Toshiyuki    $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     (Univ. of Tokyo / Univ. of Tokyo)

**17:00–18:00    Talk Invited by Geometry Section**

Satoshi Ishiwata (Yamagata Univ.)    Heat kernel estimates on connected sums

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# Complex Analysis

### September 15th (Thu)    Conference Room VIII

**9:00–11:45**

1   Shigeyoshi Owa (Yamato Univ.)    A new general idea for starlike and convex functions $\cdots\cdots\cdots\cdots\cdots$ 15
    Hari M. Srivastava (Univ. of Victoria)
    <u>Toshio Hayami</u> (Setsunan Univ.)
    Kazuo Kuroki
    (Osaka Univ. of Health and Sport Sci.)

13    Complex Analysis

19    <u>Katsuyoshi Ohara</u> (Kanazawa Univ.)    An algorithm for computing Grothendieck local residues in the case of
       Tajima Shinichi (Univ. of Tsukuba)         shape bases · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

**17:00–18:00   Talk Invited by Complex Analysis Section**

       Yu Kawakami (Kanazawa Univ.)    Geometric interpretation of value-distribution-theoretic property for the
                                        Gauss map of complete minimal surfaces

<center>September 16th (Fri)    Conference Room VIII</center>

**9:30–11:45**

20    <u>Masakazu Shiba</u> (Hiroshima Univ.[*])    Conformal embeddings of an open Riemann surface into closed ones of
       Hiroshi Yamaguchi (Shiga Univ.[*])         the same genus —The range of the period matrices— · · · · · · · · · · · · · · 15

21    <u>Sachiko Hamano</u> (Osaka City Univ.)    Variation of the moduli disk for an open Riemann surface of positive
       Masakazu Shiba (Hiroshima Univ.[*])        finite genus · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15
       Hiroshi Yamaguchi (Shiga Univ.[*])

22    <u>Shigeki Matsutani</u>    Jacobi inversion formulae for a trigonal curve $y^3 = x^2 k(x)$ · · · · · · · · · · 15
          (Sasebo Nat. Coll. of Tech.)
       Jiryo Komeda (Kanagawa Inst. of Tech.)
       Emma Previato (Boston Univ.)

23    Takashi Umeno (Kyushu Sangyo Univ.)    Two examples of arithmetic toroidal groups · · · · · · · · · · · · · · · · · · · · · · · 15

24    Takayuki Koike  (Kyoto Univ.)[*]    Ueda theory for compact curves with nodes · · · · · · · · · · · · · · · · · · · · · · · 15

25    Atsushi Atsuji    (Keio Univ.)    Default function and Liouville type theorems · · · · · · · · · · · · · · · · · · · · · · · 15

26    Genki Hosono (Univ. of Tokyo)    Converegnce along geodesics between toric plurisubharmonic functions
                                        · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10

27    Takeo Ohsawa  (Nagoya Univ.)[♭]    Runge's theorem on pseudoconvex Kähler manifolds · · · · · · · · · · · · · · · · 15

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

       Shin-ichi Matsumura (Tohoku Univ.)    On generalizations of the Kodaira vanishing theorem by transcendental
                                             methods

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# Functional Equations

<center>September 15th (Thu)    Conference Room II</center>

**9:15–12:00**

1    Masafumi Yoshino (Hiroshima Univ.)    Moving singularity and monodromy of some Hamiltonian system · · · · · 12

2    <u>Shogo Yamanaka</u> (Kyoto Univ.)    Non-integrability of general differential equations with homo- and het-
      Kazuyuki Yagasaki (Kyoto Univ.)       eroclinic orbits · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

3    <u>Mika Tanda</u> (Kansai Med. Univ.)    The relation between the confluent hypergeometric function and WKB
      Toshinori Takahashi (Kinki Univ.)     solutions · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12
      Takashi Aoki    (Kinki Univ.)

15    Functional Equations

4    Naoto Yamaoka (Osaka Pref. Univ.)    Oscillation criteria for linear dynamic equations on time scales $\cdots\cdots$ 10

5    Junya Nishiguchi (Kyoto Univ.)    Well-posedness of initial value problems of differential equations with unbounded delays $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

6    Hiroyuki Usami    (Gifu Univ.) *    Asymptotic forms of slowly decaying solutions of a Lanchester-type model $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

7    Pati Doi    (Osaka Pref. Univ.)    Oscillation criteria for a difference system with two delays $\cdots\cdots\cdots$ 10
     Hideaki Matsunaga (Osaka Pref. Univ.)

8    Tatsuki Mori    Exact solution of stationary problem for a cell polarization model $\cdots$ 12
         (East China Normal Univ.)
     Kousuke Kuto
         (Univ. of Electro-Comm.)
     Tohru Tsujikawa (Univ. of Miyazaki)
     Shoji Yotsutani (Ryukoku Univ.)

9    Kousuke Kuto    Secondary bifurcation and global solution structure for a one-dimensional
         (Univ. of Electro-Comm.)    stationary Allen–Cahn equation with nonlocal term $\cdots\cdots\cdots\cdots\cdots$ 12
     Tatsuki Mori
         (East China Normal Univ.)
     Tohru Tsujikawa (Univ. of Miyazaki)
     Shoji Yotsunani (Ryukoku Univ.)

10   Tetsutaro Shibata (Hiroshima Univ.)    Asymptotic length of bifurcation curves related to inverse bifurcation problems $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

11   Kenji Kurogi (Hiroshima Univ.)    Counterexample to the 1-summability of a divergent formal solution to some linear partial differential equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

12   Yoshihiko Mitsumatsu (Chuo Univ.)    Schröder's equation on the half-line $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12
     Tomohiro Horiuchi (Chuo Univ.)

### 14:15–16:15

13   Marco Squassina (Univ. of Verona)    Uniqueness of limit flow for quasi-linear parabolic equations $\cdots\cdots$ 10
     Tatsuya Watanabe
         (Kyoto Sangyo Univ.)

14   Mathieu Colin (Univ. of Bordeaux)    Orbital stability of standing waves for the nonlinear Schrödinger equation coupled with the Maxwell equation $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
     Tatsuya Watanabe
         (Kyoto Sangyo Univ.)

15   Yukinori Komiya (Saga Univ.)    Existence of infinitely many solutions for the $(p,q)$-Laplace equation
     Ryuji Kajikiya    (Saga Univ.)    $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

16   Hiroko Yamamoto (Meiji Univ.)    Concentration phenomenon in stationary solution of a spatially heterogeneous semilinear Neumann problem $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

17   Masataka Shibata (Tokyo Tech)    Uniqueness of positive solutions for a class of quasilinear elliptic equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12
     Shinji Adachi (Shizuoka Univ.)
     Tatsuya Watanabe
         (Kyoto Sangyo Univ.)

18   Masato Hashizume (Osaka City Univ.) ♭    Asymptotic behavior of the least-energy solutions of a semilinear elliptic equation with the Hardy–Sobolev critical exponent $\cdots\cdots\cdots\cdots\cdots$ 10

19  Takashi Suzuki  (Osaka Univ.)    A priori bounds for superlinear elliptic equations with semidefinite
    Yohei Toyota    (Osaka Univ.)    nonlinearity · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12
    Yūki Naito     (Ehime Univ.)

20  Shigeaki Koike (Tohoku Univ.)    Fully nonlinear elliptic equations with sublinear growth in $Du$ · · · · · · 12
    Takahiro Kosugi (Tohoku Univ.)

21  Masaki Ohnuma (Univ. of Tokushima)*   A strong comparison principle for semicontinuous solutions of the pre-
    Shigeru Sakaguchi (Tohoku Univ.)   scribed mean curvature equation · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

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

    Tomoyuki Tanigawa (Kumamoto Univ.)   Regular variation and asymptotic behavior of solutions of differential
                                         equations

## September 16th (Fri)    Conference Room II

## 9:00–12:00

22  Yusuke Yamauchi                  On a regularity theorem for rectangular domain · · · · · · · · · · · · · · · · · · · · 10
        (Hiroshima Inst. of Tech.)
    Mitsuharu Ôtani (Waseda Univ.)
    Tetsuya Koyama
        (Hiroshima Inst. of Tech.)

23  Kunihiro Usuba (Tokyo Univ. of Sci.)   Regularity results up to the boundary for minimizers of $p(x)$-energy
                                         with $p(x) > 1$ · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

24  Hiroya Ito (Univ. of Electro-Comm.)   Spherical functions for the Lamé operator · · · · · · · · · · · · · · · · · · · · · · · · 12
    Shuichi Jimbo (Hokkaido Univ.)
    Naofumi Honda (Hokkaido Univ.)

25  Xiaojing Liu    (Ibaraki Univ.)   Remarks on Kato's inequality when $\Delta_p u$ is a measure · · · · · · · · · · · · · · 12
    Horiuchi Toshio (Ibaraki Univ.)

26  Kohji Ohtsuka                    Shape optimization of singular points in boundary value problems · · · · 12
    (Hiroshima Kokusai Gakuin Univ.)

27  Takashi Kagaya   (Tokyo Tech)    A fixed contact angle condition for varifolds · · · · · · · · · · · · · · · · · · · · · · · 10
    Yoshihiro Tonegawa (Tokyo Tech)

28  Takashi Suzuki  (Osaka Univ.)    Lotka–Volterra systems with periodic orbits · · · · · · · · · · · · · · · · · · · · · · · 5
    Yoshio Yamada (Waseda Univ.)

29  Takashi Suzuki  (Osaka Univ.)    Dissipative reaction diffusion systems with quadratic growth · · · · · · · · · 5
    Yoshio Yamada (Waseda Univ.)

30  Ryuji Kajikiya    (Saga Univ.)   Stability of stationary solutions for sublinear parabolic equations · · · · · 12

31  Yohei Fujishima (Shizuoka Univ.)   Blow-up set of type I blowing up solutions for nonlinear parabolic
    Kazuhiro Ishige (Tohoku Univ.)   systems · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12
    Hiroki Maekawa (Tohoku Univ.)

32  Kazuhiro Ishige (Tohoku Univ.)   Heat equation with a nonlinear boundary condition and growing initial
    Ryuichi Sato    (Tohoku Univ.)   data · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

33  Yukihiro Seki    (Kyushu Univ.)*   Type II blow-up mechanisms in a semilinear heat equation with critical
                                         Joseph–Lundgren exponent · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

17    Functional Equations

34    Yasuhiro Fujita (Univ. of Toyama)   On lower estimate of gradients of solutions to uniformly parabolic equations · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

35    Shigeru Sakaguchi (Tohoku Univ.) *   Two-phase heat conductors with a stationary isothermic surface · · · · · 12

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

Toru Wakasa (Kyushu Inst. of Tech.)   Linearized eigenvalue problems associated with 1 dimensional front/pulse type steady states

# September 17th (Sat)    Conference Room II

**9:15–12:00**

36    Shuichi Jimbo (Hokkaido Univ.) *   Y-shaped graph and a time entire solution to a semilinear parabolic
Yoshihiro Takazawa                     equation · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

37    Naoto Kajiwara (Univ. of Tokyo)   Resolvent estimates for bidomain operators · · · · · · · · · · · · · · · · · · · · · · · 12
Yoshikazu Giga (Univ. of Tokyo)

38    Masaaki Mizukami                   Asymptotic stability in a two-species chemotaxis system with any chem-
      (Tokyo Univ. of Sci.)            ical diffusion · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10
Tomomi Yokota (Tokyo Univ. of Sci.)

39    Masaaki Mizukami                   Boundedness and asymptotic stability in a two-species chemotaxis-
      (Tokyo Univ. of Sci.)            competition model of parabolic-parabolic-elliptic type · · · · · · · · · · · · · 10
Tobias Black (Paderborn Univ.)
Johannes Lankeit (Paderborn Univ.)

40    Toshikazu Kuniya (Kobe Univ.)      Construction of Lyapunov functions for an SIR epidemic model with
Jinliang Wang (Heilongjiang Univ.)     diffusion terms and space-dependent coefficients · · · · · · · · · · · · · · · · · · 12

41    Yusuke Sugiyama (Tokyo Univ. of Sci.)   Degeneracy in finite time of a parameterized quasilinear wave equation
                                        · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 12

42    Mamoru Okamoto (Shinshu Univ.)     Well-posedness and ill-posedness of the Cauchy problem for the dimen-
Machihara Shuji (Saitama Univ.)        sional reduced Chern–Simons–Dirac system · · · · · · · · · · · · · · · · · · · · · · 10

43    Isao Kato        (Nagoya Univ.) *   Well-posedness and scattering for the Cauchy problem of the Klein–
                                        Gordon–Zakharov system in four and more spatial dimensions · · · · · · · 10

44    Kunio Hidano        (Mie Univ.) *   Regularity and global existence of small solutions to systems of quasi-
                                        linear wave equations in $2D$ with multiple speeds · · · · · · · · · · · · · · · · · 12

45    Masahiro Ikeda  (Kyoto Univ.) *    The Cauchy problem for the nonlinear damped wave equation with
Takahisa Inui     (Kyoto Univ.)        slowly decaying data · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10
Yuta Wakasugi (Nagoya Univ.)

46    Hiroyuki Takamura            *     Blow-up for semilinear wave equations with scale invariant damping
      (Future Univ.-Hakodate)          and super Fujita exponent · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10
Kyouhei Wakasa
      (Muroran Inst. of Tech.)

47    Kyouhei Wakasa              *      Global regularity for supercritical nonlinear dissipative wave equations
      (Muroran Inst. of Tech.)         in 3D · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10
Borislav Yordanov (Hokkaido Univ.)

48    Itsuko Hashimoto            *      Asymptotic behavior of radially symmetric solutions for quasilinear
      (Toyama Nat. Coll. of Tech.)     hypaerbolic fluid model · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10
Hideo Kozono   (Waseda Univ.)

**14:15–16:15**

49    Masaru Ikehata (Hiroshima Univ.)    On finding an obstacle with the Leontovich boundary condition via the time domain enclosure method $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

50    Fumihiko Hirosawa (Yamaguchi Univ.)    Energy estimates for the Cauchy problem of Klein–Gordon type equation with time dependent potential $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12
      Wanderley Nunes do Nascimento
      (Univ. of Campinas)

51    Shota Sakamoto (Kyoto Univ.)    A solution of the Boltzmann equation with initial datum in a Chemin–Lerner space $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12
      Yoshinori Morimoto (Kyoto Univ.)

52    Yuki Kimura    (Tohoku Univ.)    Asymptotic profile of a solution to thermoelastic equations in three space dimension $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

53    Naofumi Mori (Kyushu Univ.)    The asymptotic behavior of a nonlinear version of the Timoshenko–Cattaneo system $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12
      Reinhard Racke (Univ. of Konstanz)

54    Tetu Makino (Yamaguchi Univ.[⋆])[∗]    Application of the Nash–Moser(–Schwartz) theorem to gas dynamics $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

55    Tsubasa Itoh    (Tokyo Tech)    The growth of the vorticity gradient for the two-dimensional Euler flows on domains with cusps $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

56    Abulizi Aihaiti (Kyushu Univ.)    Large time behavior of solutions to the compressible Navier–Stokes equations in an infinite layer under slip boundary condition $\cdots\cdots\cdots\cdots$ 12
      Shouta Enomoto (Kyushu Univ.)
      Yoshiyuki Kagei (Kyushu Univ.)

57    Yoshiyuki Kagei (Kyushu Univ.)    On the spectrum for artificial compressible system $\cdots\cdots\cdots\cdots\cdots\cdots$ 12
      Takaaki Nishida (Kyoto Univ.)
      Yuka Teramoto (Kyushu Univ.)

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

Atsuhide Ishida (Tokyo Univ. of Sci.)[♭]    Direct and inverse problems of quantum scattering in time-dependent electric fields

## September 18th (Sun)    Conference Room II

**9:15–12:00**

58    Noboru Chikami (Tohoku Univ.)    On the global existence and time decay estimates in critical spaces for the Navier–Stokes–Poisson system $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12
      Raphaël Danchin (Univ. Paris-Est)

59    Hirokazu Saito (Waseda Univ.)    Global solvability of the Navier–Stokes equations with a free surface in the maximal $L_p$-$L_q$ regularity class $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

60    Hajime Koba    (Osaka Univ.)    On $L^{3,\infty}$ and $L^\infty$-stability of the Navier–Stokes system on exterior domains $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12

61    Ken Abe    (Kyoto Univ.)    Exterior Navier–Stokes flows for bounded data $\cdots\cdots\cdots\cdots\cdots\cdots$ 10

62    Mitsuo Higaki    (Kyoto Univ.)    On Navier–Stokes flows around a rotating obstacle in two-dimensions $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
      Yasunori Maekawa (Kyoto Univ.)
      Yuu Nakahara    (Tohoku Univ.)

63    Yasunori Maekawa (Kyoto Univ.)    Gevrey stability of Prandtl expansions for 2D Navier–Stokes flows $\cdots$ 10
      David Gerard-Varet (Univ. Paris VII)
      Nader Masmoudi (New York Univ.)

| | | |
|---|---|---|
| 64 | Yoshihiro Shibata (Waseda Univ.) | Global well-posedness of unsteady motion of viscous incompressible capillary liquid bounded by a free surface $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10 |
| 65 | Yoshihiro Shibata (Waseda Univ.) | On the free boundary problem for the Navier-Stokes equations in the exterior domain case. $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10 |
| 66 | Taisuke Yoneyama (Tokyo Univ. of Sci.) | Consideration of wave operator for Schrödinger equation with variable coefficients $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12 |
| 67 | Haruya Mizutani (Osaka Univ.) Jean-Marc Bouclet (Univ. Paul Sabatier) | Resolvent estimates for scaling-critical Schrödinger operators and applications $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12 |
| 68 | Wataru Ichinose (Shinshu Univ.) Takayoshi Aoki (Shinshu Univ.) | On the Cauchy problem for the Schrödinger equations with polynomially growing potentials in the spatial direction $\cdots\cdots\cdots\cdots\cdots\cdots$ 10 |
| 69 | Wataru Ichinose (Shinshu Univ.) | The Feynman path integral for the Schrödinger equations with polynomially growing potentials in the spatial direction $\cdots\cdots\cdots\cdots\cdots$ 10 |

**14:15–16:15**

| | | |
|---|---|---|
| 70 | Yutaka Kamimura (Tokyo Univ. of Marine Sci. and Tech.) | Inverse scattering method by an energy dependent Schrödinger equation $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12 |
| 71 | Satoshi Masaki (Osaka Univ.) | Existence of a minimal blowup solution to mass-subcritical nonlinear Schrödinger equation of which flow has a compactness property $\cdots\cdots$ 10 |
| 72 | Rowan Killip (UCLA) Jason Murphy (UC Berkeley) Satoshi Masaki (Osaka Univ.) Monica Visan (UCLA) | Equivalence of critical weighted bounds and scattering for mass-subcritical nonlinear Schrödinger equation: $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10 |
| 73 | Noriyoshi Fukaya (Tokyo Univ. of Sci.) | Instability of solitary waves for a generalized derivative nonlinear Schrödinger equation in a borderline case $\cdots\cdots\cdots\cdots\cdots\cdots$ 12 |
| 74 | Masahito Ohta (Tokyo Univ. of Sci.) | Strong instability of standing waves for nonlinear Schrödinger equations with harmonic potential $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10 |
| 75 | Yohei Yamazaki (Osaka City Univ.) | Stability for line solitary waves of Zakharov–Kuznetsov equation $\cdots\cdots$ 10 |
| 76 | Takahisa Inui (Kyoto Univ.) | Global dynamics of solutions with group invariance for the nonlinear Schrödinger equation $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10 |
| 77 | Nobu Kishimoto (Kyoto Univ.) | Weak dispersion limit for nonlinear Schrödinger equations with higher order corrections $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12 |
| 78 | Hayato Miyazaki (Tsuyama Nat. Coll. of Tech.) Satoshi Masaki (Osaka Univ.) | Global behavior of solutions of generalized Gross–Pitaevskii equation $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 12 |

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

| | | |
|---|---|---|
| | Masaya Maeda (Chiba Univ.) | On orbital instability of excited states of nonlinear Schrödinger equations |

# Real Analysis

September 17th (Sat)    Conference Room VI

**9:30–11:45**

1   Yoshifumi Ito (Univ. of Tokushima⋆)∗   Development of $L^p$-calculus ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯ 15

2   Yoshifumi Ito (Univ. of Tokushima⋆)∗   Fourier Transformation of $L^p_{\mathrm{loc}}$-functions ⋯⋯⋯⋯⋯⋯⋯ 15

3   Yasuhiro Fujita (Univ. of Toyama)   On the set where a generalized Takagi function takes its maximum
    Yusuke Saito (Univ. of Toyama)   ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯ 15

4   Shin-ya Matsushita (Akita Pref. Univ.)   On convergence of the aternating direction method of multipliers ⋯⋯ 15
    Li Xu      (Akita Pref. Univ.)

5   Fumiaki Kohsaka (Tokai Univ.)   Approximation of minimizers of convex functions in Hadamard spaces
    ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯ 15

6   Koji Aoyama      (Chiba Univ.)   Approximation of zeros of accretive operators in a Banach space ⋯⋯ 15

7   Sachiko Atsushiba   Common acute points, fixed points and convergence theorems for non-
       (Univ. of Yamanashi)   linear mappings ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯ 15

8   Tomonari Suzuki   Ćirić's and Bogin's fixed point theorems ⋯⋯⋯⋯⋯⋯⋯⋯⋯ 15
       (Kyushu Inst. of Tech.)

**14:15–16:00**

9   Kazuya Otsubo (Bon Agency Co.)   Fourier spherical partial sum in four-dimension. ⋯⋯⋯⋯⋯⋯ 15
    Shigehiko Kuratsubo (Hirosaki Univ.⋆)
    Eiichi Nakai      (Ibaraki Univ.)
    Shoichi Fujima  (Ibaraki Univ.)

10  Takeshi Iida   A note on the Fefferman–Stein inequality on Morrey spaces ⋯⋯⋯ 15
     (Fukushima Nat. Coll. of Tech.)
    Shohei Nakamura (Tokyo Metro. Univ.)

11  Hiroki Saito   Abstract dyadic cubes, maximal operators and Hausdorff content ⋯ 15
    (Kogakuin Univ./Tokyo Metro. Univ.)
    Hitoshi Tanaka
       (Tsukuba Univ. of Tech.)
    Toshikazu Watanabe
    (Tokyo Univ. of Information Sci.)

12  Kenichi Mitani (Okayama Pref. Univ.)   On the von Neumann–Jordan constant of Banaś–Frączek space ⋯⋯ 15
    Kichisuke Saito (Niigata Univ.)
    Yasuji Takahashi
       (Okayama Pref. Univ.⋆)

13  Aoi Honda (Kyushu Inst. of Tech.)   Shilkret–Sugeno type integral for a subadditive monotone measure and
    Yoshiaki Okazaki   its $L_p$ space ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯ 15
       (Fuzzy Logic Systems Inst.)

14  Jun Kawabe      (Shinshu Univ.)   Monotone convergence theorems for nonlinear integrals ⋯⋯⋯⋯ 15

**16:20–17:20   Talk Invited by Real Analysis Section**

Akihiko Miyachi                          Hardy space estimates for multidimensional Hausdorff operators
(Tokyo Woman's Christian Univ.)


## September 18th (Sun)      Conference Room VI

**9:30–12:00**

**14:15–15:15**

**15:30–16:30   Talk Invited by Real Analysis Section**

Hiroshi Matsuzawa                        Spreading speed and asymptotic profile of the free boundary problems
        (Numazu Nat. Coll. of Tech.)     of nonlinear diffusion equations

# Functional Analysis

## September 15th (Thu)    Conference Room IV

**14:15–16:15**

1　Hiroyuki Yamagishi
(Tokyo Metropolitan Coll. of Indus. Tech.)
Yoshinori Kametaka (Osaka Univ.$^\star$)
The best constant of Sobolev inequality corresponding to Schrödinger operator with square-well potential $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

2　Akito Suzuki　(Shinshu Univ.)
Toru Fuda　　(Hokkaido Univ.)
Daiju Funakawa (Hokkaido Univ.)
Localization of a one-dimensional split-step quantum walk $\cdots\cdots\cdots$ 15

3　Hiromichi Ohno (Shinshu Univ.)
Unitary equivalence of one-dimensional quantum walks $\cdots\cdots\cdots\cdots$ 15

4　Yoritaka Iwata $^\flat$
(Tokyo Tech / Shibaura Inst. of Tech.)
Characterization of infinitesimal generators of invertible evolution families $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

5　Yukihide Tadano (Univ. of Tokyo)
Long-range scattering for discrete Schrödinger operators $\cdots\cdots\cdots\cdots$ 15

6　Fumio Hiroshima (Kyushu Univ.)
Spectrum of discrete Schrödinger operators on lattice $\cdots\cdots\cdots\cdots\cdots$ 10

7　Fumio Hiroshima (Kyushu Univ.)
Time operators associated with Schrödinger operators $\cdots\cdots\cdots\cdots\cdots$ 15

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

Susumu Yamazaki (Nihon Univ.)
Pseudodifferential operators of infinite order and symbols in the analytic category

## September 16th (Fri)    Conference Room IV

**9:15–12:00**

8　Imam Nugraha Albania (Chiba Univ.)
Kosuke Kanemitsu (Chiba Univ.)
Masaru Nagisa　(Chiba Univ.)
The order of some functions related to their positive definiteness $\cdots\cdots$ 15

9　Yoichi Udagawa (Tokyo Univ. of Sci.)
Operator monotonicity of 2-parameter family of functions $\cdots\cdots\cdots\cdots$ 10

10　Hiroshi Isa (Maebashi Inst. of Tech.)
Masatoshi Ito (Maebashi Inst. of Tech.)
Eizaburo Kamei
Hiroaki Tohyama
　　　(Maebashi Inst. of Tech.)
Masayuki Watanabe
　　　(Maebashi Inst. of Tech.)
Velocity and acceleration at a point of the path $A\,\sharp_{t,r}\,B$ $\cdots\cdots\cdots\cdots$ 15

11　Masatoshi Ito (Maebashi Inst. of Tech.)
Estimations of power difference mean by Heron mean $\cdots\cdots\cdots\cdots\cdots$ 15

12　Yuki Seo (Osaka Kyoiku Univ.)
Operator power means and the information monotonicity $\cdots\cdots\cdots\cdots$ 10

13　Hiroyuki Osaka (Ritsumeikan Univ.)
Yukihiro Tsurumi (Ritsumeikan Univ.)
Shuhei Wada
　　　(Kisarazu Nat. Coll. of Tech.)
Generalized reverse Cauchy inequality and applications to operator means $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

14　Junichi Fujii (Osaka Kyoiku Univ.)
Around Jones–Wenzl projections $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

23    Functional Analysis

15    Mitsuru Uchiyama (Ritsumeikan Univ.)    Positive linear maps on C*-algebras and rigid functions $\cdots\cdots\cdots\cdots$ 15

16    Kei Ji Izuchi    (Niigata Univ.) [*]    Topological properties of path connected components in spaces of
Yuko Izuchi    weighted composition operators into $L^\infty$ $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
Shûichi Ohno (Nippon Inst. of Tech.)

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

Shuhei Wada    Topics in the theory of operator monotone functions
(Kisarazu Nat. Coll. of Tech.)


# September 17th (Sat)    Conference Room IV

## 9:15–12:00

17    Masatoshi Enomoto    Unbounded strongly irreducible operators and Hilbert representations
Yasuo Watatani (Kyushu Univ.)    of Kronecker quivers $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

18    Takahiro Sudo (Univ. of Ryukyus)    Classification of topological manifolds by the Euler characteristic and
the K-theory ranks of C*-algebras $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

19    Yuhei Suzuki    (Chiba Univ.)    Elementary constructions of non-discrete C*-simple groups $\cdots\cdots\cdots$ 15

20    Yuhei Suzuki    (Chiba Univ.)    Construction of minimal skew products of amenable minimal dynamical
systems $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

21    Takuya Takeishi (Kyoto Univ.)    Primitive ideals and K-theoretic approach to Bost–Connes systems $\cdots$ 10

22    Norio Nawata (Osaka Kyoiku Univ.)    Examples of simple stably projectionless $C^*$-algebras with non-zero
pairings $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

23    Tsuyoshi Kajiwara (Okayama Univ.)    Ideals of the cores of the C*-algebras associated with self-similar maps
Yasuo Watatani (Kyushu Univ.)    with higher dimensional sets of branched points $\cdots\cdots\cdots\cdots\cdots\cdots$ 15

24    Kengo Matsumoto    [*]    Strong Morita equivalence vs. strong shift equivalence $\cdots\cdots\cdots\cdots$ 15
(Joetsu Univ. of Edu.)

## 14:15–16:15

25    Shuhei Masumoto (Univ. of Tokyo)    The Jiang–Su algebra and Fraïssé theory $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

26    Yusuke Isono    (Kyoto Univ.)    On fundamental groups of tensor product $II_1$ factors $\cdots\cdots\cdots\cdots$ 15

27    Yoshikata Kida (Univ. of Tokyo)    Stable actions and central group-extensions $\cdots\cdots\cdots\cdots\cdots\cdots$ 15

28    Narutaka Ozawa (Kyoto Univ.)    A functional analysis proof of Gromov's polynomial growth theorem
$\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

29    Junko Inoue    (Tottori Univ.)    Holomorphically induced representations of certain exponential solvable
Lie groups $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

30    Taito Tauchi    (Univ. of Tokyo) [♭]    Dimension of the space of intertwining operators from degenerate prin-
cipal series representations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

31    Toshiyuki Kobayashi    The classification and explicit construction of symmetry breaking oper-
(Univ. of Tokyo / Univ. of Tokyo)    ators for differential forms on spheres $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
Toshihisa Kubo (Ryukoku Univ.)
Micheal Pevzner
(Univ. de Reims-Champagne-Ardenne)

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

Yoshiki Oshima (Univ. of Tokyo) * Unitary representations of real reductive Lie groups and orbit method

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# Statistics and Probability

### September 15th (Thu)      Conference Room VII

**9:15–12:00**

| 1 | Mamoru Tanaka (Tohoku Univ.) | A percolation on directed graphs $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10 |

2   Akira Sakai   (Hokkaido Univ.)   The lace expansion for the nearest-neighbor models on the BCC lattice
$\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

3   Jean-Dominique Deuschel
(Tech. Univ. Berlin)
Ryoki Fukushima (Kyoto Univ.)   Quenched tail estimate for the random walk in random scenery $\cdots\cdots$ 10

4   Yosuke Kawamoto (Kyushu Univ.)   Density preservation of infinite-dimensional interacting Brownian motions $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

5   Yuu Hariya   (Tohoku Univ.)   A pathwise interpretation of the Gorin–Shkolnikov identity $\cdots\cdots\cdots$ 10

6   Takahiro Tsuchiya (Univ. of Aizu)
Hiroya Hashimoto
(Nagoya Med. Center)   A SDE with the Cantor diffusion coefficient and a generalized Nakao–Le Gall condition $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

7   Dai Taguchi (Ritsumeikan Univ.)
Hoang-Long Ngo
(Hanoi Nat. Univ. of Edu.)   Euler–Maruyama scheme for SDEs with discontinuous diffusion coefficient $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

8   Hideyasu Yamashita
(Aichi Gakuin Univ.)   A Wong–Zakai-type theorem for a Yang–Mills theory on $\mathbb{R}^2$ $\cdots\cdots\cdots$ 15

9   Yu Ito   (Kyoto Sangyo Univ.)   Integration of controlled rough paths via fractional calculus $\cdots\cdots\cdots$ 15

10   Kiyoiki Hoshino (Osaka Pref. Univ.)
Tetsuya Kazumi (Osaka Pref. Univ.)   Identification of noncausal Wiener functionals from SFC $\cdots\cdots\cdots\cdots$ 10

11   Shigeyoshi Ogawa (Ritsumeikan Univ.)
Hideaki Uemura (Aichi Univ. of Edu.)   On a reconstruction of random function from its SFCs $\cdots\cdots\cdots\cdots\cdots$ 5

**14:15–15:00**

12   Masaaki Tsuchiya (Kanazawa Univ.$^\star$) *   On a characterization of the temporal homogeneity of additive processes
$\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

13   Masaki Wada   (Tohoku Univ.)   Limit theorems for fundamental solutions of Schrödinger operators $\cdots$ 15

14   Shunsuke Kaji (Kyushu Sangyo Univ.)   First passage problems over increasing boundaries for Lévy processes with exponentially decayed Lévy measures $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

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

Xiang-Dong Li
(AMSS, Chinese Acad. of Sci.)    W-entropy formulas on super Ricci flows and Langevin deformation on Wasserstein space over Riemannian manifolds

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

Naoki Kubota    (Nihon Univ.)    Large deviation principle for random walks in random environments and Lyapunov exponents

## September 16th (Fri)    Conference Room VII

### 9:00–11:40

15    Ryo Shimizu (Hiroshima Univ.)
Akihiko Inoue (Hiroshima Univ.)
Yukio Kasahara (Hokkaido Univ.)    A Baxter-type inequality for stationary processes and its application to bootstrap · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

16    Yusuke Nakamura (Hiroshima Univ.)
Akihiko Inoue (Hiroshima Univ.)    Semimartingale representation of moving-average type stationary-increment processes by innovation processes · · · · · · · · · · · · · · · · · · · · · · · · · · 15

17    Yumiharu Nakano (Tokyo Tech)    Approximating nonlinear filter by radial basis functions · · · · · · · · · · · · 15

18    Tomoki Inoue    (Ehime Univ.)    Invariant measures of random maps and the first return maps  · · · · · · · 15

19    Johannes Jaerisch (Shimane Univ.)
Marc Kesseböhmer (Univ. Bremen)
Sara Munday (Univ. di Bologna)    Cusp-winding process for some hyperbolic surfaces with cusps · · · · · · · 15

20    Hiroki Takahashi  (Keio Univ.)    On the removal of freezing phase transition of the Chebyshev quadratic maps · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

21    Naoto Shimaru (Okayama Univ. of Sci.)
Yoshiyuki Mori (Okayama Univ. of Sci.)
Keizo Takashima
        (Okayama Univ. of Sci.)    On the leading digit of $a^n$ · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10

22    Naoto Shimaru (Okayama Univ. of Sci.)
Keizo Takashima
        (Okayama Univ. of Sci.)    On the behavior of irrational rotations · · · · · · · · · · · · · · · · · · · · · · · 10

23    Naoto Shimaru (Okayama Univ. of Sci.)
Keizo Takashima
        (Okayama Univ. of Sci.)    On discrepancy of irrational rotations  · · · · · · · · · · · · · · · · · · · · · · · 10

24    Katusi Fukuyama (Kobe Univ.)
István Berkes (Graz Tech. Univ.)
Nishimura Takuya (Hitachi, Ltd.)    A metric discrepancy result with given speed · · · · · · · · · · · · · · · · · · · · 5

25    Akimichi Takemura (Shiga Univ.)
Ryosuke Sato  (Univ. of Tokyo)
Kenshi Miyabe    (Meiji Univ.)    Relation between the rate of convergence of strong law of large numbers and the rate of concentration of Bayesian prior in game-theoretic probability · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

### 11:40–12:10    Research Section Assembly

## September 17th (Sat)    Conference Room VII

### 9:15–12:00

26    Masayuki Horiguchi (Kanagawa Univ.)    A prior detection procedure on a sequential sampling problem · · · · · · · 15

27   Masahide Kuwada (Int. Inst. for Nat. Sci.)     Characteristics of balanced third-order designs of resolution $R^*(\{10, 01\})$ with $N < \nu(m)$ and $NSV_2 = 0$ for $3^m$ factorials $\cdots\cdots\cdots\cdots\cdots\cdots$ 15

Yoshifumi Hyodo (Okayama Univ. of Sci./Int. Inst. for Nat. Sci.)

Hiromu Yumiba (Int. Inst. for Nat. Sci.)

28   Kazuki Matsubara (ChuoGakuin Univ.)     Cyclically near-resolvable splitting-balanced block designs $\cdots\cdots\cdots\cdots$ 15

Sanpei Kageyama (Tokyo Univ. of Sci.)

29   Kiyoshi Inoue (Seikei Univ.)     On sooner and later waiting time distributions associated with simple patterns in a sequence of bivariate trials $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

Sigeo Aki (Kansai Univ.)

30   Hisashi Johno (Univ. of Yamanashi)     Decision tree-based calculation of the overlap between probability distributions $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

Nakamoto Kazunori (Univ. of Yamanashi)

31   Kiyotaka Iki (Tokyo Univ. of Sci.)     Double symmetric multivariate density function and its decomposition $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

Sadao Tomizawa (Tokyo Univ. of Sci.)

32   Yusuke Saigusa (Tokyo Univ. of Sci.)     Linear quasi point-symmetry model and decomposition of point-symmetry for multi-way contingency tables $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

Kouji Tahata (Tokyo Univ. of Sci.)

Sadao Tomizawa (Tokyo Univ. of Sci.)

33   Tomoyuki Nakagawa (Hiroshima Univ.)     Rubust Bayesian estimation based on $\gamma$-divergence $\cdots\cdots\cdots\cdots\cdots$ 15

Shintaro Hashimoto (Hiroshima Univ.)

34   Koji Tsukuda (Univ. of Tokyo)     Maximum likelihood estimation for the large parameter of the Ewens sampling formula $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

35   Yoshihiko Maesono (Kyushu Univ.)     Kernel type estimators of a conditional density and its application to regression $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

Taku Moriyama (Kyushu Univ.)

## 12:10–12:30   Presentation Ceremony for the 2016 MSJ Analysis Prize

## 14:15–15:00

36   Masashi Hyodo (Osaka Pref. Univ.)     Simultaneous testing of the mean vector and the covariance matrix for high-dimensional data $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

Takahiro Nishiyama (Senshu Univ.)

37   Hirokazu Yanagihara (Hiroshima Univ.)     A convergence rate of a probability of selecting the true model by a consistent $C_p$-type criterion in multivariate linear regression models $\cdots\cdot$ 15

38   Yasunori Fujikoshi (Hiroshima Univ.$^\star$)     Strong consistency of estimation criteria AIC and BIC for dimensionality in high-dimensional principal component analysis $\cdots\cdots\cdots\cdots\cdots$ 15

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

Nobumichi Shutoh (Kobe Univ.)     Linear discriminant analysis and some tests based on monotone missing data

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

Teppei Ogihara (Inst. of Stat. Math./JST PRESTO)     Statistical analysis for diffusion processes with noisy, nonsynchronous observations

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September 18th (Sun)    Conference Room VII

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**9:15–12:00**

39  <u>Hideaki Nagahata</u> (Waseda Univ.)    Numerical results of analysis of variance for multivariate time series
Masanobu Taniguchi (Waseda Univ.)    · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10

40  <u>Yujie Xue</u>    (Waseda Univ.)    Robust interpolation problem in $L^p$ · · · · · · · · · · · · · · · · · · · · · · · · · · · 10
Yan Liu    (Waseda Univ.)
Taniguchi Masanobu (Waseda Univ.)

41  <u>Yoshiyuki Tanida</u> (Waseda Univ.)    Asymptotic theory for estimation problem of Whittle functional in
Masanobu Taniguchi (Waseda Univ.)    high-dimensional time series. · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10

42  Yan Liu    (Waseda Univ.)    Quantile tests in frequency domain for sinusoid models · · · · · · · · · · · · 15

43  <u>Kou Fujimori</u>    (Waseda Univ.)    The $l_q$ consistency of the Dantzig selector for Cox's proportional hazards
Yoichi Nishiyama (Waseda Univ.)    model · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10

44  Fumiya Akashi (Waseda Univ.)    $L_1$-based empirical likelihood approach for testing problem of regression
models with singular design matrix · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

45  <u>Kazuyoshi Yata</u> (Univ. of Tsukuba)    High-dimensional classifiers for the strongly spiked models · · · · · · · · · · 15
Makoto Aoshima (Univ. of Tsukuba)

46  Aki Ishii    (Univ. of Tsukuba)    A two-sample test for high dimensional data via the cross-data-matrix
methodology · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

47  <u>Ayaka Yagi</u> (Tokyo Univ. of Sci.)    On the LRT statistic for covariance matrix with monotone missing data
Takashi Seo (Tokyo Univ. of Sci.)    · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

48  Shoichi Sasabuchi (Kyushu Univ.)    On some properties and comparison of test statistics for homogeneity
of regression coefficient vectors under synchronized order restrictions
· · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 10

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# Applied Mathematics

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September 15th (Thu)    Conference Room V

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**10:00–12:00**

1  <u>Iwao Sato</u> (Oyama Nat. Coll. of Tech.)    A matrix-weighted zeta function of a graph · · · · · · · · · · · · · · · · · · · · · 15
Hideo Mitsuhashi (Utsunomiya Univ.)
Hideaki Morita (Muroran Inst. of Tech.)

2  <u>Shunichi Maezawa</u>    Fan-type condition for a graph to be a $k$-leaf-connected · · · · · · · · · · · · 15
     (Shibaura Inst. of Tech.)
Ryota Matsubara
     (Shibaura Inst. of Tech.)
Haruhide Matsuda
     (Shibaura Inst. of Tech.)

3  Zhi Xian Zhao (Tokyo Univ. of Sci.)    Forbidden triples generating a finite set of 4-connected graphs · · · · · · 10

28    Applied Mathematics

4  Raiji Mukae                                    On tree-tree quadrangulations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
   (Miyakonojo Nat. Coll. of Tech.)
   Terukazu Sano
      (Kisarazu Nat. Coll. of Tech.)

5  Kazuhide Hirohata                              Chorded pancyclic graphs $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
      (Ibaraki Nat. Coll. of Tech.)
   Ronald J. Gould (Emory Univ.)
   Megan Cream  (Spelman Coll.)

6  Shohei Satake   (Nagoya Univ.)                 A construction of $N$-e.c. tournaments $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

7  Akihiro Higashitani                            Classification of lattice simplices with small degrees $\cdots\cdots\cdots\cdots$ 15
         (Kyoto Sangyo Univ.)
   Johannes Hofscheier
   (Otto-von-Guericke-Univ. Magdeburg)

8  Kenta Ozeki                                    On HISTs in cubic graphs $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
   (Nat. Inst. of Information / JST ERATO)
   Arthur Hoffmann-Ostenhof
      (Technical Univ. of Vienna)

**14:15–15:30**

9  Kaname Matsue (Inst. of Stat. Math.)           On eigenpairs of quantum walk models $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
   Osamu Ogurisu (Kanazawa Univ.)
   Etsuo Segawa   (Tohoku Univ.)

10 Etsuo Segawa   (Tohoku Univ.)                  Sensitivity of quantum walks to edge $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
   Hideaki Obuse (Hokkaido Univ.)

11 Takashi Komatsu                                One-dimensional three-state Fourier walk $\cdots\cdots\cdots\cdots\cdots\cdots$ 15
         (Yokohama Nat. Univ.)
   Takako Endo
   (Monash Univ. / Ochanomizu Univ.)
   Hikari Kawai (Yokohama Nat. Univ.)
   Norio Konno (Yokohama Nat. Univ.)
   Seiya Yoshida (Yokohama Nat. Univ.)

12 Takashi Komatsu                                Fourier walk on the two-dimensional torus $\cdots\cdots\cdots\cdots\cdots\cdots$ 10
         (Yokohama Nat. Univ.)
   Norio Konno (Yokohama Nat. Univ.)

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

   Chie Nara         (Meiji Univ.)    Kelvin's conjecture and space-fillers with minimal surface area —
                                      Unfolding of doubly covered polyhedra and soap film experiments—

## September 16th (Fri)     Conference Room V

**10:00–11:30**

13 Kazuhiko Ushio                                 Balanced $C_3$-foil designs and related designs $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

14 Kohei Yamada (Nagoya Univ.)                    On $\lambda$-fold factorizations of cyclic groups $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
   Miwako Mishima  (Gifu Univ.)
   Junya Satoh    (Nagoya Univ.)
   Masakazu Jimbo (Chubu Univ.)

29    Applied Mathematics

15   <u>Shoko Chisaki</u> (Tokyo Univ. of Sci.)     Computational results for optimal difference systems of sets $\cdots\cdots\cdots$ 10
     Nobuko Miyamoto (Tokyo Univ. of Sci.)

16   Tomoko Adachi    (Toho Univ.)     A cyclic labeling of bipartite graph $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

17   <u>Norihiro Nakashima</u>     A reduction of the computational complexity of the algebraic geometry
              (Tokyo Denki Univ.)     codes defined by Garcia and Stichtenoth $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     Hajime Matsui (Toyota Tech. Inst.)

**13:15–14:00**

18   Shinya Fujita (Yokohama City Univ.)     Some results on properly colored cycles in edge-colored graphs II $\cdots\cdots$ 10

19   <u>Morimasa Tsuchiya</u> (Tokai Univ.)     On strict-double-bound numbers of graphs with cut vertices $\cdots\cdots\cdots$ 10
     Shinichiro Tashiro (Tokai Univ.)
     Kazutaka Ikeda    (Tokai Univ.)

20   <u>Akira Saito</u>        (Nihon Univ.)     Toughness, binding number and restricted matching extension $\cdots\cdots\cdots$ 15
     Michael D. Plummer (Vanderbilt Univ.)

## September 17th (Sat)    Conference Room V

**10:00–11:35**

21   <u>Yushi Nakaya</u>     Grundy numbers of impartial three dimensional chocolate bar games
        (Kwansei Gakuin High School)     $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     Ryohei Miyadera
        (Kwansei Gakuin High School)

22   <u>Masaji Watanabe</u> (Okayama Univ.)     Numerical techniques for inverse analysis in study of microbial depoly-
     Fusako Kawai (Kyoto Inst. Tech.)     merization processes $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

23   <u>Aoi Honda</u> (Kyushu Inst. of Tech.)     Inclusion-exclusion integral and t-norm based data analysis model con-
     Yoshiaki Okazaki     struction $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
        (Fuzzy Logic Systems Inst.)

24   Takeshi Gotoda  (Kyoto Univ.)     Global solvability of regularized 2D Euler equations in Radon measure
                     space $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

25   <u>Koichi Anada</u>     Backward self similar solutions for a quasi-linear parabolic equations
        (Waseda Univ. Senior High School)     $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     Tetsuya Ishiwata
        (Shibaura Inst. of Tech.)

**14:15–15:30**

26   <u>Syunsuke Kobayashi</u> (Meiji Univ.)     Hopf and Hopf–Pitchfork bifurcation in an integro-differential reaction-
     Takashi Sakamoto (Meiji Univ.)     diffusion system  $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

27   Kazuyuki Yagasaki (Kyoto Univ.)     Pitchfork bifurcation and linear stability of solitary waves for coupled
     <u>Shotaro Yamazoe</u> (Kyoto Univ.)     nonlinear Schrödinger equations  $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

28   Kazuyuki Yagasaki (Kyoto Univ.)     Heteroclinic motions in periodic perturbations of conservative systems
                     $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

29   Hideto Asashiba (Shizuoka Univ.)     Matrix method for persistence modules on commutative ladders of finite
     Emerson G. Escolar (Tohoku Univ.)     type $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
     Yasuaki Hiraoka (Tohoku Univ.)
     <u>Hiroshi Takeuchi</u> (Tohoku Univ.)

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

Ichiro Hasuo  (Univ. of Tokyo)    Modern abstract mathematics at work:  Category theory and logic disentangling complex structures in computer systems

## September 18th (Sun)    Conference Room V

**10:00–12:00**

30   Shunzi Horiguchi
        (Niigata Sangyo Univ.)     Extended complex Newton's method and the formulas to compare the convergences $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

31   Shunzi Horiguchi
        (Niigata Sangyo Univ.)     Numerical calculations to compare the convergences of the extended complex Newton's method $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

32   George Miyake
        (Ube Nat. Coll. of Tech.)    A computational method for stationary solutions in nonlinear dynamical systems $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
Yuji Katsuta (Ube Nat. Coll. of Tech.)

33   Fuminori Sakaguchi (Univ. of Fukui)    Reduction of computational quantity in an integer-type algorithm for differential equations by means of 1-norm minimization $\cdots\cdots\cdots\cdots$ 15

34   Koya Sakakibara (Univ. of Tokyo)    Mathematical analysis of the method of fundamental solutions for bi-harmonic equation using Almansi-type decomposition $\cdots\cdots\cdots\cdots\cdots$ 15

35   Yoshitaka Watanabe (Kyushu Univ.)    Validated constructive error estimatations for bi-harmonic problems $\cdots$ 15
Takehiko Kinoshita (Kyoto Univ.)
Kyushu Univ.   (Kyushu Univ.)

36   Kaname Matsue (Inst. of Stat. Math.)    Rigorous numerics of tubular neighborhoods of slow manifolds $\cdots\cdots\cdots$ 15

**14:15–16:05**

37   Tomoya Kemmochi (Univ. of Tokyo)    Error analysis for the finite element approximation of parabolic equations via maximal regularity and fractional powers of operators $\cdots\cdots\cdots$ 15
Norikazu Saito (Univ. of Tokyo)

38   Takuya Tsuchiya (Ehime Univ.)    Error analysis of Lagrange interpolation on tetrahedrons $\cdots\cdots\cdots\cdots\cdots$ 15
Kenta Kobayashi (Hitotsubashi Univ.)

39   Shinya Uchiumi (Waseda Univ.)    A Lagrange–Galerkin scheme with the grad-div stabilization and a locally linearized velocity for the Oseen problem $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
Masahisa Tabata (Waseda Univ.)

40   Yoshiki Sugitani (Univ. of Tokyo)    A remark on the mathematical formulation for the immersed boundary method $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
Norikazu Saito (Univ. of Tokyo)

41   Guanyu Zhou  (Univ. of Tokyo)    The conservative finite volume scheme on Voronoi mesh for the chemotaxis model $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

42   Hiroshi Fujiwara (Kyoto Univ.)    Numerical analysis of the 2D stationary radiative transport equation by a semi-discrete upwind finite volume method $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
Nobuyuki Higashimori (Kyoto Univ.)

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

Takahito Kashiwabara (Univ. of Tokyo)    On $L^\infty$-type error estimates and discrete Green's functions in the finite element method

# Topology

### September 15th (Thu)     Conference Room III

**9:50–12:00**

1  Genki Omori     (Tokyo Tech)    A normal generating set for the handlebody subgroup of the Torelli group · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

2  Takahiro Yamamoto
    (Kyushu Sangyo Univ.)    Number of singularities of stable maps on surfaces · · · · · · · · · · · · · · · · 15

3  Ryoma Kobayashi
    (Ishikawa Nat. Coll. of Tech.)    On a normal generating set for the Torelli group of a compact non-orientable surface · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

4  Takuya Sakasai (Univ. of Tokyo)
   Masaaki Suzuki   (Meiji Univ.)
   Shigeyuki Morita
    (Univ. of Tokyo⋆/ Tokyo Tech⋆)    An abelian quotient of the symplectic derivation Lie algebra of the free Lie algebra · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

5  Shunsuke Ichiki (Yokohama Nat. Univ.)
   Takashi Nishimura
    (Yokohama Nat. Univ.)    Generalized distance-squared mappings of $\mathbb{R}^{n+1}$ into $\mathbb{R}^{2n+1}$ · · · · · · · · 15

6  Huhe Han (Yokohama Nat. Univ.)
   Takashi Nishimura
    (Yokohama Nat. Univ.)    Self-dual Wulff shapes and spherical convex bodies of constant width $\pi/2$ · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

7  Motoo Tange (Univ. of Tsukuba)    Infinite order corks · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

8  Hokuto Konno (Univ. of Tokyo)    High-dimensional wall crossing and gluing in Seiberg–Witten theory · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

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

   Hisaaki Endo     (Tokyo Tech)    Topology of Lefschetz fibrations

**15:30–17:20**

9  Hiraku Nozawa (Ritsumeikan Univ.)    Independent variation of secondary characteristic classes of Riemannian foliations · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

10  Takahiro Oba     (Tokyo Tech)    Higher dimensional contact manifolds with infinitely many Stein fillings · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

11  Yoshihiko Mitsumatsu (Chuo Univ.)
    Tomohiro Horiuchi (Chuo Univ.)    The automorphisms groups of Reeb components with complex leaves · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

12  Kouichi Yasui (Hiroshima Univ.)    Contact 5-manifolds and smooth structures on Stein 4-manifolds · · · · · 10

13  Katsuhiko Kuribayashi (Shinshu Univ.)
    Luc Menichi     (Angers Univ.)    The dual loop coproduct on the loop cohomology of the classifying space of a Lie group · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

14  Shun Wakatsuki (Univ. of Tokyo)    String topology on rational Gorenstein spaces · · · · · · · · · · · · · · · · · · · · · 15

15  Masaharu Morimoto (Okayama Univ.)    On limites of Mackey functors · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

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September 16th (Fri)     Conference Room IX

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**10:10–10:25   Presentation Ceremony for the 2016 MSJ Geometry Prize**

**10:30–11:30   Award Lecture for the 2016 MSJ Geometry Prize**

Teruhiko Soma (Tokyo Metro. Univ.)    Geometry and topology of irreducible 3-manifolds

**13:00–14:00   Award Lecture for the 2016 MSJ Geometry Prize**

Shigeharu Takayama (Univ. of Tokyo)    Complex geometry of the canonical bundle

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September 17th (Sat)     Conference Room III

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**9:50–12:00**

16  Mitsunobu Tsutaya (Kyushu Univ.)*   Finiteness of $A_n$-equivalence types of gauge groups $\cdots\cdots\cdots\cdots\cdots\cdots$ 15

17  Tatsuya Arai (Tsukuba Univ. of Tech.)*   The structure of dendrites constructed by pointwise $P$-expansive maps on the unit interval $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

18  Yukinobu Yajima (Kanagawa Univ.)   $C^*$-embedding implies $P$-embedding in certain products $\cdots\cdots\cdots\cdots$ 10
    Yasushi Hirata (Kanagawa Univ.)

19  Takashi Shimomura   Bratteli–Vershik representations on zero-dimensional homeomorphisms
    (Nagoya Univ. of Economics)   $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

20  Takashi Shimomura   Expansiveness on finite rank Bratteli–Vershik homeomorphisms $\cdots\cdots$ 10
    (Nagoya Univ. of Economics)

21  Shosuke Omori (Waseda Univ.)   A product space of {0,1} and an abstract polycrystal $\cdots\cdots\cdots\cdots\cdots$ 15
    Tomoyuki Yamamoto (Waseda Univ.)
    Akihiko Kitada (Waseda Univ.)

22  Shintaro Kuroki   Cohomological non-rigidity of eight-dimensional complex projective
         (Okayama Univ. of Sci.)   towers $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15
    Dong Youp Suh        (KAIST)

23  Hirokazu Nishinobu (Kochi Univ.)   Rational cohomologies of classifying spaces for homogeneous spaces of
    Toshihiro Yamaguchi (Kochi Univ.)   small rank $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

24  Tadayuki Haraguchi   A model structure of the category of diffeological spaces $\cdots\cdots\cdots\cdots$ 15
         (Oita Nat. Coll. of Tech.)

25  Naoya Suzuki   The equivariant cohomology on a simplicial manifold $\cdots\cdots\cdots\cdots\cdots$ 10
    (Nat. Inst. of Tech., Akita Coll.)

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

John Parker (Univ. of Duhram)   Non-arithmetic lattices

**15:30–17:15**

26  Teruaki Kitano    (Soka Univ.)   $SL(2;\mathbb{R})$-representations of a Brieskorn homology 3-sphere $\cdots\cdots\cdots\cdots$ 10
    Yoshikazu Yamaguchi (Akita Univ.)

27  Masaaki Suzuki    (Meiji Univ.)   Epimorphisms between 2-bridge knot groups ans their crossing numbers
    $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

28  Takefumi Nosaka (Kyushu Univ.)   On the fundamental relative 3-classes of knot group representations
    $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

29  Ken'ichi Yoshida (Univ. of Tokyo)  Union of 3-punctured spheres in a hyperbolic 3-manifold ·········· 15

30  Anh T. Tran (Univ. of Texas at Dallas)
Yoshikazu Yamaguchi (Akita Univ.)  Asymptotic behavior of Reidmeister torsion for toroidal surgeries along twist knots ······················································· 10

31  Takuya Katayama (Hiroshima Univ.)  RAAGs in knot groups ············································ 15

32  Yoshihiro Takeuchi
(Aichi Univ. of Edu.)
Misako Yokoyama (Shizuoka Univ.)  The $w$-Čech cohomology of orbifolds ···························· 10

## September 18th (Sun)    Conference Room Ⅲ

**9:50–12:00**

33  Kodai Wada    (Waseda Univ.)  A note on Milnor's link-homotopy invariants ····················· 10

34  Kodai Wada    (Waseda Univ.)
Natsuka Kobayashi
(Tokyo Metropolitan Fujimori High School)
Akira Yasuhara   (Tsuda Coll.)  Milnor invariants of covering links ······························· 10

35  Yuka Kotorii (Univ. of Tokyo)
Atsuhiko Mizusawa  Milnor invariant for handlebody-links ···························· 10

36  Nao Imoto (Nara Women's Univ.)  On an estimation of flat plumbing basket number of knots ·········· 10

37  Inasa Nakamura (Univ. of Tokyo)  Unbraiding 2-dimensional braids by an addition of 1-handles with chart loops ·················································· 10

38  Ayumu Inoue (Aichi Univ. of Edu.)
Ryo Shimizu
(Okazakigakuen High School)  On a subspecies of region crossing change ······················· 10

39  Ryo Hanaki (Nara Univ. of Edu.)  On scannable properties of the original knot from a knot shadow ····· 10

40  Noboru Ito    (Univ. of Tokyo)
Yusuke Takimura
(Gakushuin Boys' Junior High School)  Any notrivial knot projection with no triple chords has a monogon or bigon ······················································ 10

41  Noboru Ito    (Univ. of Tokyo)  Spaces of chord diagrams on spherical curves I ···················· 15

42  Eri Matsudo    (Nihon Univ.)
Kazuhiro Ichihara (Nihon Univ.)  Minimal coloring number for $\mathbb{Z}$-colorable links ···················· 10

43  Takuji Nakamura
(Osaka Electro-Comm. Univ.)
Yasutaka Nakanishi (Kobe Univ.)
Shin Satoh    (Kobe Univ.)  The minimum number of colors of Fox colorings for torus knots ······ 10

# Infinite Analysis

## September 15th (Thu)      Conference Room VI

**10:15–12:00**

1   <u>Masahiko Ito</u> (Tokyo Denki Univ.)       An elliptic generalization of the Gustafson–Rakha summation formula
    Masatoshi Noumi (Kobe Univ.)        · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

2   Azusa Ikeda (Aoyama Gakuin Univ.)      $q$-Painlevé systems of type $A$ and their generalization · · · · · · · · · · · · · · 15
    <u>Tetsu Masuda</u> (Aoyama Gakuin Univ.)

3   Tetsu Masuda (Aoyama Gakuin Univ.)      Hypergeometric solutions to the $q$-Painlevé system of type $A_2^{(1)}$ and $A_3^{(1)}$
                                            · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

4   Ryo Kamiya    (Univ. of Tokyo)         Quasi-integrable generalization of the two-dimensional discrete Toda
    <u>Masataka Kanki</u> (Kansai Univ.)        equation · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15
    Tetsuji Tokihiro (Univ. of Tokyo)
    Takafumi Mase (Univ. of Tokyo)

5   <u>Saburo Kakei</u>    (Rikkyo Univ.)       Jeu de taquin slide and discrete 2-dimensional Toda equation · · · · · · · · 15
    Shuhei Kamioka (Kyoto Univ.)
    Yosuke Katayama (Rikkyo Univ.)
    Yasuhiro Ohta    (Kobe Univ.)

6   Hideshi Yamane                         Long-time asymptotics for the focusing integrable discrete nonlinear
            (Kwansei Gakuin Univ.)         Schrödinger equation · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

**14:15–15:15**

7   Atsushi Nobe     (Chiba Univ.)         Mutations of the cluster algebra of type $A_1^{(1)}$ and the discrete Toda
                                            lattice · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15

8   <u>Toshiki Nakashima</u> (Sophia Univ.)     Affine geometric crystal of $A_n^{(1)}$ and limit of Kirillov–Reshetikhin perfect
    Kailash C. Misra                       crystals · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15
          (North Carolina State Univ.)

9   <u>Masato Okado</u> (Osaka City Univ.)       Bijection from paths to rigged configurations for type D · · · · · · · · · · · 15
    Reiho Sakamoto (Tokyo Univ. of Sci.)
    Anne Schilling      (UC Davis)
    Travis Scrimshaw (Univ. of Minnesota)

10  <u>Atsuo Kuniba</u> (Univ. of Tokyo)        Stochastic R matrix for $U_q(A_n^{(1)})$ · · · · · · · · · · · · · · · · · · · · · · · · · · · · · 15
    Vladimir Mangazeev
            (Australia Nat. Univ.)
    Shouya Maruyama (Univ. of Tokyo)
    Masato Okado (Osaka City Univ.)

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

    Kohei Motegi                           Partition functions of integrable lattice models and symmetric polyno-
    (Tokyo Univ. of Marine Sci. and Tech.)  mials

## September 16th (Fri)      Conference Room VI

**10:15–11:45**

11   <u>Taichiro Takagi</u>
     (Nat. Defense Acad. of Japan)
     Takuma Yoshikawa
     (Nat. Defense Acad. of Japan)

Generalized Wick theorems in conformal field theory and the Borcherds identity $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

12   <u>Kanehisa Takasaki</u> (Kinki Univ.)
     Toshio Nakatsu (Setsunan Univ.)

Quantum mirror curve of closed topological vertex and Kac–Schwarz operator of $q$-difference type $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 15

13   <u>Ryosuke Kodera</u> (Kyoto Univ.) [*]
     Hiraku Nakajima (Kyoto Univ.)

Cherednik algebras and quantized Coulomb branches $\cdots\cdots\cdots\cdots$ 15

14   Takeshi Ikeda (Okayama Univ. of Sci.)   Pieri rule for the $K$-theoretic $P$-functions $\cdots\cdots\cdots\cdots\cdots\cdots$ 15

15   Ivan Ip          (Kyoto Univ.)   Positive representations of split real quantum groups $\cdots\cdots\cdots\cdots$ 15

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

Tatsuyuki Hikita (Kyoto Univ.) [♭]   On the cohomology of conical symplectic resolutions

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# Official Party

Date:   September 16th (Fri) 18:00–20:00
Venue:   Mediapark "RINPUKAN" 2F Dining Hall Di-Noah

Participants are asked to pay 5,000 JPY at the party.

# Directions

## 2016 MSJ AUTUMN MEETING

Dates : September 15th (Thu)–18th (Sun), 2016

Venue : Kansai University

3–3–35 Yamate-cho, Suita, Osaka 564-8680

Contact to : Kansai University

Graduate School of Science and Engineering

3–3–35 Yamate-cho, Suita, Osaka 564-8680

kansai16sept@mathsoc.jp

Phone +81 (0) 90 1791 3483 (During session)

Web Site : http://mathsoc.jp/en/meeting/kansai16sept/

# Conference Rooms

|  | Place | Research Sections |
|---|---|---|
| Conference Room I | Bldg. 3,    1F Rm. 3101 | Algebra, Featured Invited Talks |
| Conference Room II | Bldg. 3,    2F Rm. 3201 | Functional Equations, Featured Invited Talks |
| Conference Room III | Bldg. 3,    4F Rm. 3401 | Topology |
| Conference Room IV | Bldg. 3,    4F Rm. 3402 | Functional Analysis |
| Conference Room V | Bldg. 4, B1F Rm. 4001 | Applied Mathematics |
| Conference Room VI | Bldg. 4, B1F Rm. 4002 | Infinite Analysis, Real Analysis |
| Conference Room VII | Bldg. 4,    2F Rm. 4201 | Statistics and Probability, Featured Invited Talk |
| Conference Room VIII | Bldg. 4,    2F Rm. 4202 | Complex Analysis, Foundation of Mathematics and History of Mathematics |
| Conference Room IX | Bldg. 4,    3F Rm. 4301 | Geometry, Featured Invited Talks |
| Plenary Talks | BIG Hall 100 | |
| Open Lectures for Citizens | Bldg. 3, 2F Rm. 3201 (Conference Room II) | |

# Other Rooms

| | |
|---|---|
| Membership Fee & Extended Abstracts | Bldg. 4, 1F Rm. 4103 |
| Discussion Rooms | Bldg. 3, 4F Rm. 3403 / Bldg. 4, Foyer |
| Book Display and Sale | Bldg. 4, 1F Rm. 4101 |
| Executive Committee, MSJ President | Bldg. 4, 1F Rm. 4102 |
| Official Party | Mediapark "RINPUKAN" 2F Dining Hall Di-Noah |