Final: 2013/2/7

2013 Mathematical Society of Japan

ANNUAL MEETING

Dates: March 20th–23rd, 2013
Venue: Kyoto University, Yoshida-South Campus
Contact to: Deptartment of Mathematics and RIMS,
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Mathematical Society of Japan
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	I Yoshida-S 4 4C30	II Yoshida-S 4 4C31	III Yoshida-S 4 4C21	IV Yoshida-S 4 4C11	V Media Cntr S B1	VI Yoshida-S Cntr CW41	VII Yoshida-S Cntr CW31	VIII Yoshida-S Cntr CS11	IX Yoshida-S Cntr CS01
20th (Wed)	Algebra 9:00–12:00 14:15–16:45	Topology 9:30–12:00	Geometry 9:20–12:00 14:20–15:20	Functional Equations 9:30–12:00 14:15–16:30		Applied Mathematics 9:30–11:35 14:15–16:25	Found. of Math. and History of Math. 9:30–11:30 14:15–16:30	Real Analysis 9:00–12:10 14:15–16:30	Statistics and Probability 9:30–12:00
	Featured Invited Talks 13:00–14:00								
	Invited Talk 16:45–17:45	Invited Talks 14:30–15:30 15:45–16:45	Invited Talk 15:45–16:45	Invited Talk 16:45–17:45		Invited Talk 16:40–17:40		Invited Talk 16:45–17:45	Invited Talks 14:30–15:30 15:45–16:45
21st (Thu)	Algebra 9:00–12:00	Topology 9:30–12:00	Geometry 9:20–11:50	Functional Equations 9:30–12:00	Functional Analysis 9:30–12:15	Applied Mathematics 9:30–11:35	Found. of Math. and History of Math. 9:30–11:40	Real Analysis 9:00–11:55 12:55–13:25	Statistics and Probability 9:00–11:50 13:20–14:30
	Invited Talk 13:15–14:15	Invited Talk 13:30–14:30	Invited Talk 13:00–14:00	Invited Talk 13:30–14:30	Invited Talk 13:30–14:30	Invited Talk 13:15–14:15	Invited Talk 13:10–14:10	Invited Talk 13:40–14:40	
	MSJ Prizes Presentation (Clock Tower 1F) ····· (14:50–15:20) Plenary Talks (Clock Tower 1F) MSJ Spring Prize Winner ····· (15:30–16:30) Yoshihiro Tonegawa (Hokkaido Univ.) ····· (16:45–17:45) Official Party (Clock Tower 2F) ····· (18:00–20:00)								
22nd (Fri)	Algebra 9:00–12:00 14:15–15:00	Topology 10:15–11:50 15:00–16:35	Geometry 9:30–11:30	Functional Equations 9:30–12:00 14:15–16:15	Functional Analysis 10:00–12:00 14:30–15:20	Applied Mathematics 9:00–11:45 14:15–16:30	Infinite Analysis 9:30–11:45 14:15–15:35	Complex Analysis 9:30–12:00 14:20–15:40	Statistics and Probability 9:30–12:00
	Featured Invited Talks 13:00–14:00								
	Invited Talks 15:30–16:30 16:45–17:45		Invited Talks 14:20–15:20 15:40–16:40	Invited Talk 16:30–17:30	Invited Talk 15:40–16:40	Invited Talk 16:45–17:45	Invited Talk 15:45–16:45	Invited Talk 16:00–17:00	Invited Talks 14:30–15:30 15:45–16:45
23rd (Sat)	Algebra 9:00–12:00 14:15–16:45			Functional Equations 9:30–11:45	Functional Analysis 10:30–12:00		Infinite Analysis 9:45–11:40	Complex Analysis 10:00–12:00	
	Featured Invited Talks 13:00–14:00								
				Invited Talk 14:15–15:15	Invited Talk 14:30–15:30		Invited Talk 14:30–15:30	Invited Talk 14:20–15:20	

Refer to page 34 for the abbreviation rule for conference rooms.

Plenary Talks

March 21st (Thu) Clock Tower Centennial Hall, Centennial Hall (1F)

MSJ Autumn Prize Winner ..... (15:30〜16:30)

Yoshihiro Tonegawa (Hokkaido Univ.) ♯ Regularity theories on generalized minimal surfaces and mean curvature flows ..... (16:45〜17:45)

Featured Invited Talks

March 20th (Wed)

Conference Room I

Yuzuru Inahama (Nagoya Univ.) Rough path theory —(stochastic) analysis of iterated integrals— ..... (13:00〜14:00)

Conference Room III

Toshiki Mabuchi (Osaka Univ.) ♯ New developments in the Kobayashi–Hitchin correspondence for manifolds ..... (13:00〜14:00)

March 22nd (Fri)

Conference Room I

Guest Talk from the Japan Society for Industrial and Applied Mathematics

Shinichiro Nakamura (RIKEN) ♯ In search for hidden mathematics in industrial basic problems ..... (13:00〜14:00)

Conference Room III

Hiroyuki Ochiai * (Kyushu Univ./JST CREST) A survey on a classification of unitary representations .... (13:00〜14:00)

March 23rd (Sat)

Conference Room I

Satoshi Yoshiara ♯ (Tokyo Woman's Christian Univ.) Around nonlinear functions ..... (13:00〜14:00)

Conference Room III

Junjiro Noguchi (Univ. of Tokyo) Value distribution and distribution of rational points II ... (13:00〜14:00)

Conference Room IV

Tatsuo Nishitani (Osaka Univ.) ♯ The Cauchy problem for partial differential equations with double characteristics ..... (13:00〜14:00)

Talks invited by Research Sections and Special Session

March 20th (Wed)

Algebra (Conference Room I)

Takayuki Hayakawa (Kanazawa Univ.)♯ Birational morphisms of 3-dimensional algebraic varieties · (16:45〜17:45)

Geometry (Conference Room Ⅲ)

Wayne Rossman (Kobe Univ.)♯ Construction of discrete surfaces in terms of discrete flat connections · (15:45〜16:45)

Functional Equations (Conference Room Ⅳ)

Naoto Yamaoka (Osaka Pref. Univ.)♯ An oscillation constant for half-linear differential equations and its application · (16:45〜17:45)

Real Analysis (Conference Room Ⅷ)

Giorgio Metafune (Salento Univ.)♯ Spectral properties of second order operators with unbounded coefficients in $\mathbb{R}^d$ · (16:45〜17:45)

Statistics and Probability (Conference Room Ⅸ)

Daisuke Shiraishi (Kyoto Univ.)♯ Non-intersecting two-sided random walks · (14:30〜15:30)

Naoyuki Ichihara (Hiroshima Univ.)♯ Asymptotic problems for viscous Hamilton–Jacobi equations and stochastic control · (15:45〜16:45)

Applied Mathematics (Conference Room Ⅵ)

Jun Fujisawa (Keio Univ.)♯ On the existence of good structures in graphs · (16:40〜17:40)

Topology (Conference Room Ⅱ)

Takahiro Kitayama (Univ. of Tokyo)♯ Torsion functions on character varieties and an extension of Culler–Shalen theory · (14:30〜15:30)

Makoto Sakuma (Hiroshima Univ.)♯ Simple loops on bridge spheres and Heegaard surfaces · (15:45〜16:45)

March 21st (Thu)

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

Hiroshi Sakai (Kobe Univ.)♯ stationary and semi-stationary reflection principles · (13:10〜14:10)

Algebra (Conference Room I)

Naoki Terai (Saga Univ.) Classification of licci edge ideals · (13:15〜14:15)

Geometry (Conference Room Ⅲ)

Makiko Tanaka (Tokyo Univ. of Sci.)♯ Antipodal sets of compact symmetric spaces and the intersection of totally geodesic submanifolds · (13:00〜14:00)

Functional Equations (Conference Room Ⅳ)

Award Lecture for 2012 Analysis Prize

Shigeru Sakaguchi (Tohoku Univ.)♯ Stationary isothermic surfaces and geometry of domain · (13:30〜14:30)

Real Analysis (Conference Room VIII)

Tsuyoshi Yoneda (Hokkaido Univ.)♯ Fourier analysis and rotating Navier–Stokes equations ···· (13:40〜14:40)

Functional Analysis (Conference Room V)

Hisayosi Matumoto (Univ. of Tokyo)♯ On the homomorphisms between scalar generalized Verma modules ····· (13:30〜14:30)

Applied Mathematics (Conference Room VI)

Hayato Chiba (Kyushu Univ.)♯ A spectral theory of linear operators on a Gelfand triplet and its application to the dynamics of coupled oscillators ····· (13:15〜14:15)

Topology (Conference Room II)

Kouichi Yasui (Hiroshima Univ.)♯ Corks and exotic 4-manifolds ····· (13:30〜14:30)

March 22nd (Fri)

Algebra (Conference Room I)

Award Lecture for 2012 Algebra Prize

Tomoyuki Arakawa (Kyoto Univ.)♯ Representation theory of W-algebras ····· (15:30〜16:30)

Award Lecture for 2012 Algebra Prize

Atsushi Ichino (Kyoto Univ.)♯ Automorphic representations and periods ····· (16:45〜17:45)

Geometry (Conference Room III)

Jeff Viaclovsky ♯ (Univ. of Wisconsin, Madison) Critical metrics on connected sums of Einstein four-manifolds ····· (14:20〜15:20)

Hiroshi Matsuzoe ♯ (Nagoya Inst. of Tech.) Statistical manifolds and geometry of estimating functions ····· (15:40〜16:40)

Complex Analysis (Conference Room VIII)

Tomoki Kawahira (Nagoya Univ.)♯ Zalcman's lemma and complex dynamics ····· (16:00〜17:00)

Functional Equations (Conference Room IV)

Award Lecture for 2012 Analysis Prize

Yoshiyuki Kagei (Kyushu Univ.)♯ Asymptotic behavior of solutions of the compressible Navier-Stokes equation around a parallel flow ····· (16:30〜17:30)

Functional Analysis (Conference Room V)

Reiji Tomatsu (Hokkaido Univ.)♯ Classification problem of group or quantum group actions on von Neumann algebras ····· (15:40〜16:40)

Statistics and Probability (Conference Room IX)

Masanori Sawa (Nagoya Univ.)♯ The theory of cubature formulae and designs in numerical analysis, algebraic combinatorics and mathematical statistics ····· (14:30〜15:30)

Award Lecture for 2012 Analysis Prize

Masanobu Taniguchi (Waseda Univ.)♯ Non-standard analysis for time series ····· (15:45〜16:45)

Applied Mathematics (Conference Room VI)

Takeshi Ohtsuka (Gunma Univ.)♯ A level set formulation for evolving spirals and their behavior in spiral crystal growth ····· (16:45〜17:45)

Infinite Analysis (Conference Room VII)

Zengo Tsuboi (Humboldt-Univ. zu Berlin) ♯ Baxter Q-operators and tau-function for quantum integrable systems ····· (15:45〜16:45)

March 23rd (Sat)

Complex Analysis (Conference Room VIII)

Hidetaka Hamada (Kyushu Sangyo Univ.) ♯ Loewner chains on complete hyperbolic complex manifolds ····· (14:20〜15:20)

Functional Equations (Conference Room IV)

Hiroyuki Takamura (Future Univ.-Hakodate) ♯ General theory of initial value problems for nonlinear wave equations and its optimality. ····· (14:15〜15:15)

Functional Analysis (Conference Room V)

Akzunori Ando (Univ. of Tsukuba) ♯ Inverse scattering problem for discrete Schrödinger operators on the hexagonal lattice ····· (14:30〜15:30)

Infinite Analysis (Conference Room VII)

Kentaro Nagao (Nagoya Univ.) Quivers with potential, 3d Calabi–Yau categories and the cohomological Hall algebras ····· (14:30〜15:30)

Open Lectures for Citizens

Sponsored by: Mathematical Society of Japan
Co-sponsored by: Department of Mathematics and RIMS, Kyoto University
Date: March 24th (Sun) 14:00–16:30
Venue: Kyoto University, Yoshida-South Campus Bldg No. 4, Rm 4C11
Program: Opening Speech:
Yoichi Miyaoka (Univ. of Tokyo) ····· (14:00–14:10)

Lecture 1:
Hisashi Okamoto (Kyoto Univ.)
Fluid mechanics and mathematics ····· (14:15–15:15)

Lecture 2:
Hiroshi Sugita (Osaka Univ.)
Probability and random number ····· (15:30–16:30)

Web Page: `http://mathsoc.jp/en/meeting/kyoto13mar/`

Final: 2013/2/7

Presentation by Prof. Gert-Martin Greuel

Sponsored by: Mathematical Society of Japan
Date: March 20th (Wed) 16:30–17:00
Venue: Yoshida-South Campus Academic Center Bldg, Rm CN28
Presentor: Prof. Gert-Martin Greuel
(Director of Mathematisches Forschungsinstitut Oberwolfach (MFO) /
Editor-in-Chief of Zentralblatt MATH)
Title: The Reviewing Service Zentralballt MATH: Challenges and Opportunities
Web Page: `http://mathsoc.jp/en/meeting/kyoto13mar/`

Foundation of Mathematics and History of Mathematics

March 20th (Wed) Conference Room VII

9:30–11:30

1 Teruaki Asai (Nara Univ. of Edu.) * On the table of Plimpton 322 15

2 Ken Saito (Osaka Pref. Univ.) ♯ Diagrams in Euclid's *Elements* —Books 7–13 20

3 Shigeru Masuda (Kyoto Univ.) ♯ The Fourier's motivations of works in the span of life 20

4 Shigeru Masuda (Kyoto Univ.) ♯ The definite integral by Euler and Laplace from the viewpoint of Poisson 20

5 Kenshi Miyabe (Kyoto Univ.) ♯ The other history of probability theory 15

6 Setsuo Takato (Toho Univ.) ♯ Consideration of an interpretation of the Fangcheng procedure of *the Nine Chapters on the Mathematical Arts* 15

14:15–16:30

7 Hideyuki Majima (Ochanomizu Univ.) ♯ Some remarks on the calculation of pi by Takebe Katahiro 20

8 Hikosaburo Komatsu (Univ. of Tokyo*) * On Mikami Yoshio's study on the theory of determinants in Japan in the 17th century. Which are justified and which are not? 30

9 Shotaro Tanaka Representation of fractional function in power series —Expanstion by Komatsu and by theorem by Wada, summary— 20

10 Takahiro Seki (Niigata Univ.) ♯ A Gentzen-style formulation for non-associative substructural logics I 15

11 Keishi Okamoto (Sendai Nat. Coll. of Tech.) ♯ On expressiveness of first-order temporal logics 15

12 Ryota Matsuo (Nagoya Univ.) ♯ Logics for strategies 15

March 21st (Thu) Conference Room VII

9:30–11:40

13 Kohtaro Tadaki (Chuo Univ.) ♯ The generic group model and algorithmic randomness 20

14 Kenshi Miyabe (Kyoto Univ.) ♯ Van Lambalgen's Theorem for uniform Kurtz randomness 15

15 Akitoshi Kawamura (Univ. of Tokyo) ♯
Norbert Müller (Univ. Trier)
Carsten Rösnick (TU Darmstadt)
Martin Ziegler (TU Darmstadt)
On representations of analytic functions and polynomial-time computability of operators 15

16 Takayuki Kihara (JAIST) ♯ An application of Kumabe–Slaman forcing to the ω-decomposability problem on Borel functions 20

17 Tatsuya Miyazaki (Nagoya Univ.) ♯ On rigid Souslin trees and their preservation 15

18 Teruyuki Yorioka (Shizuoka Univ.) ♯ Some statements which can be forced with a coherent Suslin tree 15

19 Toshimichi Usuba (Nagoya Univ.) ♯ Large cardinals and indestructibly countably tight spaces 15

13:10–14:10 Talk invited by Section on Foundation and History of Mathematics

Hiroshi Sakai (Kobe Univ.)♯ stationary and semi-stationary reflection principles

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Algebra

March 20th (Wed) Conference Room I

9:00–12:00

1 Tomohiro Iwami * (Kyushu Sangyo Univ.) On certain criterion (weak form) for semistability of 3-fold log flips ····· 10

2 Ryo Akiyama (Shizuoka Univ.)♯ Classification of quantum affine planes ····· 10

3 Yoshifumi Tsuchimoto (Kochi Univ.)♯ Auslander regularity of non commutative projective space ····· 15

4 Shinya Kitagawa * (Gifu Nat. Coll. of Tech.) On certain pencils of plane curves of degree thirteen with a quintuple point and nine quadruple points ····· 15

5 Sachiko Saito (Hokkaido Univ. of Edu.)♯ Real 2-elementary K3 surfaces of type (3,1,1) and degenerations ····· 10

6 Takeshi Usa (Univ. of Hyogo) Homological shells of a canonical curve $g = 5, 6$ ····· 15

7 Shigeru Iitaka (Gakushuin Univ.)♯ Hartshorne identities and their application ····· 15

8 Yoshiaki Fukuma (Kochi Univ.)♯ Effective non-vanishing of global sections of multiple adjoint bundles for quasi-polarized n-folds ····· 15

9 Ryo Okawa (Kyoto Univ.)♯, Hokuto Uehara (Tokyo Metro. Univ.) Frobenius morphisms and derived categories on two dimensional toric Deligne–Mumford stacks ····· 15

10 Kotaro Kawatani ♯ (Nagoya Univ. / Osaka Univ.) FM groupoid on K3 surfaces and Atkin–Lehner involutions ····· 15

11 Kotaro Kawatani ♯ (Nagoya Univ. / Osaka Univ.) Stability conditions on K3 surfaces and hyperbolic plane ····· 15

14:15–16:45

12 Kazunori Yasutake (Kyushu Univ.)* On Fano fourfolds with nef vector bundle $\Lambda^2 T_X$ ····· 10

13 Kiwamu Watanabe (Saitama Univ.)* Fano 5-folds with nef tangent bundles ····· 15

14 Ken-ichi Yoshida (Nihon Univ.)♯, Shiro Goto (Meiji Univ.), Kazuho Ozeki (Yamaguchi Univ.), Ryo Takahashi (Nagoya Univ.), Kei-ichi Watanabe (Nihon Univ.) Ulrich ideals and modules on 2-dimensional rational singularities ····· 15

15 Takayuki Hibi ♯ (Osaka Univ. / JST CREST), Akihiro Higashitani (Osaka Univ.) Normality of dilated polytopes ····· 15

16 Akihiro Higashitani (Osaka Univ.)♯ Non-normal very ample toric rings ····· 15

17 Kazunori Matsuda (Nagoya Univ.) * Regularity bounds for binomial edge ideals ····· 10
Satoshi Murai (Yamaguchi Univ.)

18 Hidefumi Osugi ♯ Toric ideals and their circuits ····· 15
(Rikkyo Univ. / JST CREST)
Takayuki Hibi
(Osaka Univ. / JST CREST)

19 Akiyoshi Sannai (Nagoya Univ.) ♯ Numerical characterizations of F-singularities ····· 10

20 Yusuke Nakajima (Nagoya Univ.) ♯ Generalized F-signature of invariant subrings ····· 15
Mitsuyasu Hashimoto (Nagoya Univ.)

16:45–17:45 Talk invited by Algebra Section

Takayuki Hayakawa (Kanazawa Univ.) ♯ Birational morphisms of 3-dimensional algebraic varieties

March 21st (Thu) Conference Room I

9:00–12:00

21 Noriko Zaitsu (Eigakuin) The field highter dimension over R than the sedenions does not exist ····· 10

22 Shinichi Tajima (Univ. of Tsukuba) ♯ Efficient symbolic computation of matrix polynomials with an extended Horner's rule ····· 10
Katsuyoshi Ohara (Kanazawa Univ.)
Akira Terui (Univ. of Tsukuba)

23 Shinichi Tajima (Univ. of Tsukuba) ♯ On structure of invariant subspaces for square matrix ····· 10
Katsuyoshi Ohara (Kanazawa Univ.)

24 Katsuyoshi Ohara (Kanazawa Univ.) ♯ A randomized algorithm for computing minimal annihilating polynomials of square matrix ····· 10
Shinichi Tajima (Univ. of Tsukuba)

25 Shuzo Izumi (Kinki Univ.) ♯ A family of Artinian rings associated to a finite-dimensional vector space of holomorphic functions ····· 10

26 Shuzo Izumi (Kinki Univ.) ♯ Taylor expansion and transcendency on an analytic manifold embedded in an affine space ····· 15

27 Kazuma Shimomoto (Meiji Univ.) * F-injective and F-split rings and deformation problems ····· 10
Jun Horiuchi (Nippon Inst. of Tech.)
Lance Edward Miller (Univ. of Utah)

28 Takahiko Furuya (Tokyo Univ. of Sci.) ♯ Hochschild cohomology for a class of some self-injective special biserial algebras of rank four ····· 10

29 Hiroaki Komatsu * Adjoint pair associated to generalized derivations of bimodules ····· 10
(Okayama Pref. Univ.)

30 Yasuhiko Takehana ♯ A generalization of costable torsion theory ····· 10
(Hakodate Nat. Coll. of Tech.)

31 Takuma Aihara (Bielefeld Univ.) Dimensions of triangulated categories with respect to subcategories 2 ····· 15
Tokuji Araya (Tokuyama Coll. of Tech.)
Osamu Iyama (Nagoya Univ.)
Ryo Takahashi (Nagoya Univ.)
Michio Yoshiwaki (Osaka City Univ.)

32 Ryo Kanda (Nagoya Univ.) Classifying Serre subcategories via atom spectrum ····· 10

33 Hirotaka Koga (Univ. of Tsukuba) ♯ Derived equivalences and Gorenstein dimension ····· 20

13:15–14:15 Talk invited by Algebra Section

Naoki Terai (Saga Univ.) Classification of licci edge ideals

March 22nd (Fri) Conference Room I

9:00–12:00

34 Satoshi Yamanaka (Okayama Univ.) ♯, Shûichi Ikehata (Okayama Univ.) On Galois polynomials of degree p in skew polynomial rings of derivation type II ····· 10

35 Mitsuhiro Miyazaki * (Kyoto Univ. of Edu.) Tensor of indeterminates and invariant theory ····· 10

36 Kyouko Kimura (Shizuoka Univ.) * Non-vanishingness of Betti numbers of edge ideals and complete bipartite graphs ····· 10

37 Takao Hayami (Hokkai-Gakuen Univ.) * Hochschild cohomology ring of quaternion algebras ····· 10

38 Kenichi Shimizu (Nagoya Univ.) ♯ On indicators of Hopf algebras ····· 15

39 Hiroki Sasaki (Shinshu Univ.) ♯ Cohomology rings of tame blocks ····· 15

40 Tsuyoshi Miezaki (Yamagata Univ.) ♯, Thomas Creutzig (TU Darmstadt), Gerald Höhn (Kansas State Univ.) The McKay–Thompson series of Mathieu Moonshine modulo two ···· 10

41 Yuya Mizuno (Nagoya Univ.) ♯ τ-tilting modules over preprojective algebras of Dynkin type ····· 15

42 Akihiko Hida (Saitama Univ.) ♯ The action of the double Burnside algebra on the cohomology of the extraspecial p-group ····· 10

43 Yutaka Yoshii (Nara Nat. Coll. of Tech.) * The Loewy series of PIMs for $2(h-1)$-deep weights for a finite Chevalley group ····· 10

44 Tomohiro Kamiyoshi ♯ (Matsue Coll. of Tech.), Makoto Nagura (Nara Nat. Coll. of Tech.), Shinichi Otani (Kanto Gakuin Univ.) Counting subspaces generated by subsets of a root system ····· 10

45 Tsunekazu Nishinaka ♯ (Okayama Shoka Univ.) Primitivity of group rings of locally freely productable groups ····· 10

46 Shuhei Tsujie (Hokkaido Univ.) ♯, Norihiro Nakashima (Hokkaido Univ.) A canonical system of basic invariants of a finite reflection group ····· 10

14:15–15:00

47 Toshiyuki Kikuta (Osaka Inst. of Tech.) ♯, Hirotaka Kodama (Kinki Univ.), Shoyu Nagaoka (Kinki Univ.) A congruence property of Igusa's cuspform of weight 35 ····· 15

48 Shingo Sugiyama (Osaka Univ.) ♯ Asymptotic behaviors of means of central values of automorphic L-functions for $GL(2)$ ····· 10

49 Yasuko Hasegawa (Keio Univ.) ♯ Central values of standard L-functions for $Sp(2)$ ····· 10

15:30–16:30 Award Lecture for 2012 Algebra Prize

Tomoyuki Arakawa (Kyoto Univ.) ♯ Representation theory of W-algebras

16:45–17:45 Award Lecture for 2012 Algebra Prize

Atsushi Ichino (Kyoto Univ.)♯ Automorphic representations and periods

March 23rd (Sat) Conference Room I

9:00–12:00

50 Yoshio Tanigawa (Nagoya Univ.)* On the means of number-theoretic error terms with shifted arguments
Jun Furuya (Okinawa Nat. Coll. of Tech.) 10

51 Yusuke Fujisawa (Nagoya Univ.)* On estimates of partial sums of the Möbius and Liouville functions for number fields
Makoto Minamide (Kyoto Sangyo Univ.) 15

52 Takahiro Wakasa (Nagoya Univ.)* Supremum of the function $S_1(t)$ on short intervals 10

53 Kaneaki Matsuoka (Nagoya Univ.) The behavior of the higher derivatives of Hardy's function under the Riemann hypothesis 10

54 Masanori Katsurada (Keio Univ.)♯ Complete asymptotic expansions for generalized Epstein zeta-functions 10

55 Soichi Ikeda (Nagoya Univ.)* On an alternating series representation of real numbers 10

56 Soichi Ikeda (Nagoya Univ.) The mean values of Euler–Zagier double zeta function 10
Kaneaki Matsuoka (Nagoya Univ.)
Yoshikazu Nagata (Nagoya Univ.)

57 Tomoya Machide (Kinki Univ.)♯ Restricted sum formulas for double zeta values of even weight and Ramanujan's identity for Bernoulli numbers 10

58 Yasuo Ohno (Kinki Univ.)♯ On 2 and 3-orders of di-Bernoulli numbers 10
Mika Sakata (Kinki Univ.)

59 Tomoya Machide (Kinki Univ.)♯ On a parameterized sum formula for quadruple zeta values 10

60 Takao Komatsu (Hirosaki Univ.)♯ Poly-Cauchy polynomials 15
Ken Kamano (Osaka Inst. of Tech.)

61 Shingo Saito (Kyushu Univ.)* The Bowman–Bradley theorem for mod p multiple zeta values 10
Noriko Wakabayashi (Kyushu Sangyo Univ.)

62 Kazuhito Kozuka* Knopp type identities for p-adic multiple Dedekind sums 10
(Miyakonojo Nat. Coll. of Tech.)

14:15–16:45

63 Masatoshi Nakano* Some conjecture on Fibonacci number 10
(Kesennuma High School)

64 Hajime Kaneko (Nihon Univ.)♯ Transcendence of real numbers related to the β-expansions by Pisot and Salem numbers 15

65 Yohei Tachiya (Hirosaki Univ.)♯ Linear independence of certain Lambert series 10

66 Masatoshi Suzuki (Tokyo Tech)♯ On self-reciprocal polynomials having only zeros on the unit circle ... 15

Geometry

March 20th (Wed) Conference Room Ⅲ

9:20–12:00

14:20–15:20

13 Hirotake Kurihara (Kyoto Univ.)♯ A characterization of great antipodal sets by design theory on complex Grassmannian spaces ····· 15

14 Jun Nonaka (Keio Univ.)* Coxeter polyhedra in hyperbolic spaces ····· 15

15 Soji Kaneyuki (上智大*) On the group of holomorphic and anti-holomorphic transformations of a compact Hermitian symmetric space and the G-structure ····· 15

15:45–16:45 Talk invited by Geometry Section

Wayne Rossman (Kobe Univ.)♯ Construction of discrete surfaces in terms of discrete flat connections

March 21st (Thu) Conference Room Ⅲ

9:20–11:50

16 Takayuki Moriyama (Kyoto Univ.)♯ Deformations of special Legendrian submanifolds on Sasaki–Einstein manifolds ····· 15

17 Kotaro Kawai (Tohoku Univ.)* Construction of coassociative submanifolds ····· 10

18 Kota Hattori (Univ. of Tokyo)* Generalizations of Taub-NUT deformations ····· 15

19 Tomoyuki Hisamoto (Univ. of Tokyo)♯ Geometry of the space of Kähler metrics, the relation between Calabi-type functionals and the Donaldson–Futaki invariant. ····· 15

20 Nobuhiko Otoba (Keio Univ.)♯ New examples of Riemannian metrics with constant scalar curvature ····· 15

21 Hajime Fujita (Japan Women's Univ.)♯ On an S^1-equivariant index for symplectic manifold ····· 15

22 Masao Jinzenji (Hokkaido Univ.)♯ Masahide Shimizu (Hokkaido Univ.) Multi-point virtual structure constants and mirror computation of CP^2-model ····· 10

23 Tsukasa Takeuchi (Tokyo Univ. of Sci.)♯ Kiyonori Hosokawa (Tokyo Univ. of Sci.) About the configuration and characteristic of concrete recursion operator ····· 10

24 Peng Fei Bai (Nagoya Inst. of Tech.)* Toshiaki Adachi (Nagoya Inst. of Tech.) Areas of trajectory-spheres ····· 10

13:00–14:00 Talk invited by Geometry Section

Makiko Tanaka (Tokyo Univ. of Sci.)♯ Antipodal sets of compact symmetric spaces and the intersection of totally geodesic submanifolds

March 22nd (Fri) Conference Room Ⅲ

9:30–11:30

25 Shun Maeta (Tohoku Univ.)♯ Biharmonic submanifolds and generalized Chen's conjecture ····· 10

26 Shun Maeta (Tohoku Univ.)♯ Hajime Urakawa (Tohoku Univ.) Biharmonic Lagrangian submanifolds in complex space forms ····· 10

27 Yoshio Matsuyama (Chuo Univ.)♯ Curvature pinching for complete submanifolds ····· 10

28 Hiroki Sako (Kyoto Univ.)* Generalizations of expander graphs and Property A for discrete metric spaces ····· 15

29 Shouhei Honda (Kyushu Univ.) * A Bochner type inequality on limit spaces. ····· 20

30 Kei Kondo (Tokai Univ.) ♯ Toponogov's comparison theorem in Finsler geometry ····· 20
Shin-ichi Ohta (Kyoto Univ.)
Minoru Tanaka (Tokai Univ.)

14:20–15:20 Talk invited by Geometry Section

Jeff Viaclovsky ♯ Critical metrics on connected sums of Einstein four-manifolds
(Univ. of Wisconsin, Madison)

15:40–16:40 Talk invited by Geometry Section

Hiroshi Matsuzoe ♯ Statistical manifolds and geometry of estimating functions
(Nagoya Inst. of Tech.)

Complex Analysis

March 22nd (Fri) Conference Room VIII

9:30–12:00

1 Katsuyuki Nishimoto * N-fractional calculus of the function $f(z) = ((z-b)^2-c)^{-3}$ and identities
(Descartes Press Co.) ····· 15

2 Mitsuru Uchiyama (Shimane Univ.) ♯ Principal inverses of orthogonal polynomials ····· 15

3 Hitoshi Shiraishi (Kinki Univ.) ♯ Coefficient estimates for Schwarz functions ····· 15
Toshio Hayami (Kinki Univ.)

4 Toshio Hayami (Kinki Univ.) ♯ Coefficient estimates for a certain class concerned with arguments of
Shigeyoshi Owa (Kinki Univ.) $f'(z)$ ····· 15

5 Junichi Nishiwaki (Setsunan Univ.) ♯ Notes on a certain class of analytic functions ····· 15
Shigeyoshi Owa (Kinki Univ.)

6 Kazuo Kuroki (Kinki Univ.) ♯ Starlikeness of order α for certain class of analytic functions ····· 15
Shigeyoshi Owa (Kinki Univ.)

7 Naohiro Yaginuma (Nippon RAD, Inc.) ♯ On the first boundary value problem of the biharmonic equation for the
Minoru Yanagishita (Chiba Univ.) half-space ····· 15

8 Hiroaki Masaoka (Kyoto Sangyo Univ.) ♯ On harmonic Hardy–Orlicz spaces ····· 15
Tero Kilpeläinen (Univ. of Jyvaskyla)
Pekka Koskela (Univ. of Jyvaskyla)

9 Rikio Yoneda * Toeplitz operators and Hankel operators on the Bergman spaces with
(Otaru Univ. of Commerce) closed range ····· 10

14:20–15:40

10 Masashi Kisaka (Kyoto Univ.) ♯ On the transcendental entire functions with the property that $J(f) \cup \{\infty\} \subset \widehat{\mathbb{C}}$ is a Sierpiński carpet ····· 15

11 Masahiro Yanagishita (Waseda Univ.) ♯ On a relation between the universal Teichmüller space and the Grunsky operator ····· 20

12 Yoshihiko Shinomiya (Tokyo Tech) ♯ On holomorphic sections of Veech holomorphic families of Riemann surfaces ····· 15

13 Yohei Komori (Waseda Univ.) * On a degenerate family of Riemann surfaces of genus two over an elliptic curve ····· 15

16:00–17:00 Talk invited by Complex Analysis Section

Tomoki Kawahira (Nagoya Univ.) ♯ Zalcman's lemma and complex dynamics

March 23rd (Sat) Conference Room VIII

10:00–12:00

14 Kohei Ueno (Toba Nat. Coll. of Maritime Tech.) * Böttcher coordinates for polynomial skew products ····· 15

15 Tomoko Shinohara (Tokyo Metro. Coll. of Ind. Tech.) ♯ A construction of an invariant surface for an indeterminate point of rational mappings ····· 15

16 Tatsuhiro Honda (Hiroshima Inst. of Tech.) ♯ Distortion theorems for linearly invariant families ····· 15
Hidetaka Hamada (Kyushu Sangyo Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)

17 Tomohiro Okuma (Yamagata Univ.) * The maximal ideal cycles over complete intersection surface singularities of Brieskorn type ····· 15
Fan-Ning Meng (Yamagata Univ.)

18 Atsuhira Nagano (Waseda Univ.) ♯ Double integrals on chambers of the Kummer surface and the Hilbert modular function ····· 15

19 Takayuki Koike (Univ. of Tokyo) * Minimal singular metrics of a line bundle admitting no Zariski-decomposition ····· 10

20 Masanori Adachi (Nagoya Univ.) ♯ On the ampleness of positive CR line bundles over 3-manifolds foliated by Riemann surfaces ····· 15

14:20–15:20 Talk invited by Complex Analysis Section

Hidetaka Hamada (Kyushu Sangyo Univ.) ♯ Loewner chains on complete hyperbolic complex manifolds

Functional Equations

March 20th (Wed) Conference Room IV

9:30–12:00

14:15–16:30

16:45–17:45 Talk invited by Functional Equations Section

Naoto Yamaoka (Osaka Pref. Univ.)♯ An oscillation constant for half-linear differential equations and its application

March 21st (Thu) Conference Room IV

9:30–12:00

18 Satoshi Tanaka (Okayama Univ. of Sci.)♯ Exact multiplicity of positive solutions for a class of two-point boundary value problems with one-dimensional p-Laplacian ····· 15

19 Naoki Sioji (Yokohama Nat. Univ.)♯ Kohtaro Watanabe (Nat. Defense Acad. of Japan) Uniqueness of a positive radial solution for an elliptic equation $\Delta u + g(r)u + h(r)u^p = 0$ and its applications ····· 15

20 Ryuji Kajikiya (Saga Univ.)* Asymmetry of positive solutions of the Emden–Fowler equation in hollow symmetric domains ····· 15

21 Ryuji Kajikiya (Saga Univ.)* Multiple positive solutions of the Emden–Fowler equation in hollow symmetric domains ····· 15

22 Yasuhito Miyamoto (Keio Univ.)♯ Structure of the positive solutions for supercritical elliptic equations in a ball ····· 10

23 Yasuhito Miyamoto (Keio Univ.)♯ Symmetry breaking bifurcation from solutions concentrating on the equator of $\mathbb{S}^N$ ····· 10

24 Yasuhito Miyamoto (Keio Univ.)♯ Kazuyuki Yagasaki (Hiroshima Univ.) Monotonicity of the first eigenvalue and the global bifurcation diagram for the branch of interior peak solutions ····· 10

25 Daisuke Naimen (Osaka City Univ.)♯ Existence of infinitely many solutions for nonlinear Neumann problems with indefinite coefficients ····· 15

26 Yusuke Kotera (Osaka Univ.)♯ Takashi Suzuki (Osaka Univ.) Takuya Tsuchiya (Ehime Univ.) Hadamard variational formula for general domain perturbation ····· 10

27 Yoichi Miyazaki (Nihon Univ.)♯ L_p regularity theorem for elliptic equations and smoothness of the domain ····· 12

13:30–14:30 Award Lecture for 2012 Analysis Prize

Shigeru Sakaguchi (Tohoku Univ.)♯ Stationary isothermic surfaces and geometry of domain

March 22nd (Fri) Conference Room IV

9:30–12:00

28 Chihiro Aida (Meiji Univ.)♯ Chao-Nien Chen (Nat. Changhua Univ. of Edu.) Hirokazu Ninomiya (Meiji Univ.) Diffusion-induced bifurcation from infinity ····· 15

29 Yuki Kaneko (Waseda Univ.)♯ Yoshio Yamada (Waseda Univ.) Kazuhiro Oeda (Waseda Univ.) Spreading and vanishing for free boundary problems in an ecological model ····· 15

30 Hiroko Okochi ♯ (Tokyo Univ. of Pharmacy and Life Sci.) Conditions for Turing's instability concernig reaction-diffusion equations ····· 8

31 Hiroko Okochi ♯ (Tokyo Univ. of Pharmacy and Life Sci.) — Pattern transitions of solutions concerning reaction-diffusion equations · · · 8

32 Yoshifumi Mimura (Tokyo Univ. of Sci.) ♯ — The variational formulation of the fully parabolic Keller–Segel system with degenerate diffusion · · · 15

33 Sachiko Ishida (Tokyo Univ. of Sci.) ♯, Tomomi Yokota (Tokyo Univ. of Sci.) — Local-in-time existence and blow-up of solutions to quasilinear degenerate parabolic-parabolic Keller–Segel systems · · · 15

34 Noriko Mizoguchi * (Tokyo Gakugei Univ./JST PRESTO), Michael Winkler (Univ. Paderborn) — Finite-time blowup in the two-dimensional parabolic Keller–Segel system · · · 15

35 Takashi Suzuki (Osaka Univ.) ♯, Yoshio Yamada (Waseda Univ.) — Global-in-time behavior of Lotka–Volterra systems · · · 10

36 Norisuke Ioku (Ehime Univ.) ♯ — On the best constant for the Hardy inequality in the limiting case with scale invariance · · · 12

37 Hiroya Ito (Univ. of Electro-Comm.) ♯ — A generalization of the Korn inequality · · · 15

14:15–16:15

38 Naoyuki Ichihara (Hiroshima Univ.) * — On the criticality of viscous Hamilton–Jacobi equations · · · 15

39 Tomoyuki Niizato (Osaka Univ.) * — Almost global existence of solutions to the short-pulse equation · · · 10

40 Takamori Kato (Kyoto Univ.) ♯, Kotaro Tsugawa (Nagoya Univ.) — Unconditional well-posedness of the fifth order KdV equation with periodic boundary condition · · · 15

41 Nakao Hayashi (Osaka Univ.) * — Logarithmic time decay and cubic nonlinear Schrödinger equations · · · 10

42 Masahiro Ikeda (Osaka Univ.) ♯ — Lifespan of solutions for the nonlinear Schrödinger equation without gauge invariance · · · 10

43 Toshiyuki Suzuki (Tokyo Univ. of Sci.) ♯ — The limiting case of nonlinear Schrödinger equations with inverse-square potentials · · · 15

44 Hayato Miyazaki (Hiroshima Univ.) ♯ — The derivation of the conservation law for nonlinear Schrödinger equations of Gross–Pitaevskii type · · · 10

45 Nobu Kishimoto (Kyoto Univ.) ♯ — Well-posedness for the cubic nonlinear Schrödinger equation on two-dimensional torus · · · 15

16:30–17:30 Award Lecture for 2012 Analysis Prize

Yoshiyuki Kagei (Kyushu Univ.) ♯ — Asymptotic behavior of solutions of the compressible Navier-Stokes equation around a parallel flow

March 23rd (Sat) Conference Room IV

9:30–11:45

46 Hiroyuki Takamura * (Future Univ.-Hakodate), Kyouhei Wakasa (Future Univ.-Hakodate) — An example of dissipative structure of nonlinear wave equations with quadratic terms in four space dimensions · · · 10

47 Kazuyuki Doi (Toyama Pref. Univ.) *, Hideo Kubo (Hokkaido Univ.) — On the weighted pointwise estimates for derivatives of solutions to the wave equation · · · 10

48 Tomonari Watanabe (Hiroshima Univ.) ♯ Global existence and decay estimates for quasilinear wave equations with nonuniform dissipative term ····· 10

49 Itsuko Hashimoto * Initial boundary value problem for scalar conservation law ····· 10
(Kanazawa Univ. / Osaka City Univ.)
Heinrich Freistühler (Konstanz Univ.)

50 Naoki Tsuge (Gifu Univ.) ♯ The motion of the gas in a nozzle —Time global existence and invariant regions— ····· 15

51 Jan Prüss (Univ. Halle) * On a stability of incompressible two-phase flows with phase transitions in a bounded domain: The case of non-equal densities ····· 15
Senjo Shimizu (Shizuoka Univ.)
Mathias Wilke (Univ. Halle)

52 Tetu Makino (Yamaguchi Univ.) * Spherically symmetric motions of a gaseous star ····· 15

53 Teppei Kobayasi (Meiji Univ.) * Jeffery–Hamel's flows in the plane III ····· 10

54 Teppei Kobayasi (Meiji Univ.) * Steady Navier–Stokes equations with Poiseuille's flow and Jeffery–Hamel's flow ····· 15

14:15–15:15 Talk invited by Functional Equations Section

Hiroyuki Takamura ♯ General theory of initial value problems for nonlinear wave equations and its optimality.
(Future Univ.-Hakodate)

Real Analysis

March 20th (Wed) Conference Room VIII

9:00–12:10

1 Shota Kojima (Rikkyo Univ.) ♯ A generalization of e ····· 10

2 Yukino Tomizawa (Chuo Univ.) ♯ Lipschitz evolution operators in Banach spaces ····· 15
Yoshikazu Kobayashi (Chuo Univ.)
Naoki Tanaka (Shizuoka Univ.)

3 Takesi Fukao (Kyoto Univ. of Edu.) ♯ Characterization of the solution for evolution equations with time-dependent constraints ····· 15
Nobuyuki Kenmochi (Bukkyo Univ.)

4 Toyohiko Aiki (Japan Women's Univ.) ♯ On large time behavior of a solution to the concrete corrosion problem in a sewer pipe ····· 15
Adrian Muntean (TU Eindhoven)

5 Ken Shirakawa (Chiba Univ.) Existence theorem for solutions to multidimensional phase-field models of grain boundaries ····· 15
Salvador Moll (Univ. Valencia)

6 Noriaki Yamazaki (Kanagawa Univ.) ♯ Necessary conditions for optimal control of positive solutions to second order impulsive differential equations ····· 15
Lingling Zhang (Taiyuan Univ. of Tech.)
Chengbo Zhai (Shanxi Univ.)

7 Hiroki Ohwa (Niigata Univ.) * On the wave-front tracking method for 2×2 hyperbolic systems of conservation laws ····· 15

8 Naoki Sato ♯ (Nagaoka Nat. Coll. of Tech.)
Toyohiko Aiki (Japan Women's Univ.)
Yusuke Murase (Meijo Univ.)
Ken Shirakawa (Chiba Univ.)
On global solution of a one dimensional free boundary problem for adsorption phenomena ····· 15

9 Motohiro Sobajima ♯ (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
On analytic C_0-semigroups generated by generalized Ornstein–Uhlenbeck operators in weighted L^p-spaces ····· 15

10 Yutaka Tsuzuki (Tokyo Univ. of Sci.) ♯
Motohiro Sobajima (Tokyo Univ. of Sci.)
Tomomi Yokota (Tokyo Univ. of Sci.)
Solvability of nonlinear heat equations with unbounded obstacles coupled with Navier–Stokes equations ····· 15

11 Akio Ito (Kinki Univ.) ♯
Kazuhiko Yamamoto (Kinki Univ.)
Existence and uniqueness of non-negative time-global solutions to ODE system describing cardiomegaly ····· 15

12 Risei Kano (Kochi Univ.) ♯
Akio Ito (Kinki Univ.)
The existence of weak solutions for tumor invasion models ····· 15

14:15–16:30

13 Kota Kumazaki ♯ (Tomakomai Nat. Coll. of Tech.)
Large time behavior of a solution for carbon dioxide transport model in concrete carbonation process ····· 15

14 Hiroshi Watanabe (Salasian Polytecnic) ♯
A kinetic approach to strongly degenerate parabolic equations ····· 15

15 Akio Ito (Kinki Univ.) ♯
Nobuyuki Kenmochi (Bukkyo Univ.)
Yusuke Murase (Meijo Univ.)
Solvability of mathematical modeling for Sake whose finish time depends on the solutions ····· 15

16 Takeshi Iida ♯ (Fukushima Nati. Coll. of Tech.)
The inequalities on weighted Morrey spaces for Hardy–Littlewood maximal function and singular integrals ····· 15

17 Gaku Sadasue (Osaka Kyoiku Univ.) ♯
Yoshihiro Sawano (Tokyo Metro. Univ.)
Eiichi Nakai (Ibaraki Univ.)
Generalized Morrey–Campanato spaces of martingales ····· 15

18 Takahiro Noi (Chuo Univ.) ♯
Trace operators for Besov spaces with variable exponents ····· 15

19 Katsuo Matsuoka (Nihon Univ.) ♯
On the boundedness for singular integrals in central Morrey spaces and λ-CMO spaces ····· 15

20 Shinya Moritoh (Nara Women's Univ.) *
Anisotropic versions of some analogues of Besov–Triebel–Lizorkin spaces ····· 15

16:45–17:45 Talk invited by Real Analysis Section

Giorgio Metafune (Salento Univ.) ♯
Spectral properties of second order operators with unbounded coefficients in $\mathbb{R}^d$

March 21st (Thu) Conference Room VIII

9:00–11:55

21 Enji Sato (Yamagata Univ.) ♯
Takashi Izumi (Yamagata Univ.)
Fourier multipliers from L^p spaces to Morrey spaces on the unit circle ····· 15

22 Nobusumi Sagara (Hosei Univ.)♯ Maharam-types and Lyapunov's theorem for vector measures on Banach spaces ····· 15
Mohammed Ali Khan (Johns Hopkins Univ.)

23 Toshiharu Kawasaki (Nihon Univ.)♯ Approximately derivative in a vector lattice ····· 15

24 Toshikazu Watanabe (Nihon Univ.)♯ On Riesz space-valued non-additive measures ····· 15
Tamaki Tanaka (Niigata Univ.)

25 Fumiaki Kohsaka (Oita Univ.)♯ Nonexistence of fixed points and unbounded sets ····· 15

26 Kichi-Suke Saito (Niigata Univ.)♯ Beckner's inequality and its application to Banach spaces ····· 10
Ryotaro Tanaka (Niigata Univ.)
Naoto Komuro (Hokkaido Univ. of Edu.)

27 Ryotaro Tanaka (Niigata Univ.)♯ A structure of finite dimensional normed linear spaces ····· 15
Kichi-Suke Saito (Niigata Univ.)

28 Hiroyasu Mizuguchi (Niigata Univ.)♯ On the calculation method of the Dunkl–Williams constant of normed spaces ····· 15
Kichi-Suke Saito (Niigata Univ.)
Ryotaro Tanaka (Niigata Univ.)

29 Koji Aoyama (Chiba Univ.)♯ Existence of fixed points of firmly nonexpansive-like mappings in Banach spaces ····· 15

30 Aoi Honda (Kyushu Inst. of Tech.)♯ Inner and outer approximation spaces of $\Lambda_2(f)$ and ℓ_p ····· 15
Yoshiaki Okazaki (Kyushu Inst. of Tech.)
Hiroshi Sato (Kyushu Univ.*)

12:55–13:25

31 Takayuki Tamura (Chiba Univ.)♯ On direct sums of Banach spaces with a strictly monotone norm ····· 15
Mikio Kato (Shinshu Univ.)

32 Yasuji Takahashi (Okayama Pref. Univ.)* Some results on von Neumann–Jordan type constants of a Banach space ····· 15
Mikio Kato (Shinshu Univ.)

13:40–14:40 Talk invited by Real Analysis Section

Tsuyoshi Yoneda (Hokkaido Univ.)♯ Fourier analysis and rotating Navier–Stokes equations

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Functional Analysis

March 21st (Thu) Conference Room V

9:30–12:15

1 Tatsuya Tsurii (Osaka Pref. Univ.)♯ Deformations of finite hypergroups ····· 10
Satoshi Kawakami (Nara Univ. of Edu.)

2 Masafumi Sakao (Chiba Univ.) ♯
Tatsuya Tsurii (Osaka Pref. Univ.)
Satoe Yamanaka (Osaka Pref. Univ.)
Satoshi Kawakami (Nara Univ. of Edu.)
Duality problem of extension hypergroups ····· 10

3 Itsumi Mikami ♯
Tatsuya Tsurii (Osaka Pref. Univ.)
Satoe Yamanaka (Osaka Pref. Univ.)
Satoshi Kawakami (Nara Univ. of Edu.)
A hypergroup coming from infinite dimensional representations of a motion group ····· 10

4 Satoe Yamanaka (Osaka Pref. Univ.) ♯
Herbert Heyer (Tübingen Univ.)
Satoshi Kawakami (Nara Univ. of Edu.)
Induced states of a hypergroup ····· 10

5 Satoshi Kawakami (Nara Univ. of Edu.) ♯
Herbert Heyer (Tübingen Univ.)
When does the dual have a hypergroup structure? ····· 10

6 Satoshi Kawakami (Nara Univ. of Edu.) ♯
Herbert Heyer (Tübingen Univ.)
Imprimitivity theorem for representations of a hypergroup ····· 10

7 Takaaki Nomura (Kyushu Univ.) *
Inductive structure and the determinant of the right multiplication operators in the clan structure of a Euclidean Jordan algebra ····· 15

8 Hideto Nakashima (Kyushu Univ.) ♯
Clans defined by representations of Hermitian Jordan algebras ····· 15

9 Hideto Nakashima (Kyushu Univ.) ♯
Takaaki Nomura (Kyushu Univ.)
Clans defined by representations of Lorentzian Jordan algebras ····· 15

10 Hideto Nakashima (Kyushu Univ.) ♯
Takaaki Nomura (Kyushu Univ.)
Dual clans of clans defined by representations of Euclidean Jordan algebras ····· 15

11 Atsumu Sasaki (Tokai Univ.) ♯
Compatible automorphisms for visible linear actions ····· 15

12 Takashi Hashimoto (Tottori Univ.) ♯
Embedding of real coadjoint orbits in the twisted cotangent bundle of the complex flag variety ····· 15

13:30–14:30 Talk invited by Functional Analysis Section

Hisayosi Matumoto (Univ. of Tokyo) ♯
On the homomorphisms between scalar generalized Verma modules

March 22nd (Fri) Conference Room V

10:00–12:00

13 Yuki Seo (Osaka Kyoiku Univ.) ♯
The Arithmetic-Geometric mean inequality in an external formula ··· 10

14 Kei Ji Izuchi (Niigata Univ.) *
Quang Dieu Nguyen
(Hanoi Univ. of Education, Vietnam)
Shûichi Ohno (Nippon Inst. of Tech.)
Composition operators induced by analytic maps to the polydisk ····· 15

15 Wolfgang Krieger (Univ. of Heidelberg) *
Toshihiro Hamachi (Kyushu Univ.⋆)
A class of subshifts with property (A) ····· 15

16 Tsuyoshi Kajiwara (Okayama Univ.) ♯
Yasuo Watatani (Kyushu Univ.)
Trace on cores of C*-algebras associated with rational functions ····· 15

17 Kengo Matsumoto *
(Joetsu Univ. of Edu.)
C^*-algebras associated with Hilbert C^*-quad modules of finite type ····· 15

18 Yasuhiko Sato (Kyoto Univ.) ♯ Decomposition rank of UHF absorbing C*-algebras ····· 15

19 Hiroyuki Osaka (Ritsumeikan Univ.) ♯
Tamotsu Teruya (Gunma Univ.)
Nuclear dimension for an inclusion of unital C^*-algebras ····· 10

20 Hiroyuki Osaka (Ritsumeikan Univ.) ♯
Dinh Trung Hoa (Duy Tan Univ.)
Ho Minh Toan
(Math. Inst., Vietnam Acad. of Sci. and Tech.)
On generalized Powers–Størmer's inequality ····· 15

14:30–15:20

21 Hiroshi Ando (IHÉS) ♯
Uffe Haagerup (Univ. of Copenhagen)
Ultraproducts of von Neumann algebras ····· 20

22 Satoshi Goto (Sophia Univ.) ♯ On classification of connections between Dynkin diagrams and *ADE* fusion bimodules ····· 10

23 Satoshi Goto (Sophia Univ.) ♯ On generalized Goodman–de la Harpe–Jones subfactors of type *D-E* ····· 10

24 Satoshi Goto (Sophia Univ.) ♯ On flat and non-flat connection systems of the 3311 spoke subfactor ····· 5

15:40–16:40 Talk invited by Functional Analysis Section

Reiji Tomatsu (Hokkaido Univ.) ♯ Classification problem of group or quantum group actions on von Neumann algebras

March 23rd (Sat) Conference Room V

10:30–12:00

25 Hiromichi Miyake ♯ On the existence of the mean values for commutative semigroups of Dunford–Schwartz operators on L^1 ····· 15

26 Yoshinori Kametaka (Osaka Univ.*) ♯ The best constant of discrete Sobolev inequality on chiral type Carbon nano tube ····· 10

27 Hiroyuki Yamagishi ♯
(Tokyo Metro. Coll. of Ind. Tech.)
Yoshinori Kametaka (Osaka Univ.)
Atsushi Nagai (Nihon Univ.)
Kohtaro Watanabe
(Nat. Defense Acad. of Japan)
Kazuo Takemura (Nihon Univ.)
Complete low-cut filter and the best constant of Sobolev inequality ····· 10

28 Hiroyuki Yamagishi ♯
(Tokyo Metro. Coll. of Ind. Tech.)
Kohtaro Watanabe
(Nat. Defense Acad. of Japan)
Yoshinori Kametaka (Osaka Univ.)
The best constant of discrete Sobolev inequality on complete graph ····· 10

29 Shin-ichi Nakagiri (Kobe Univ.) ♯ Structural properties of solution semigroups associated with hyperbolic Volterra integro-differential systems ····· 15

30 Kohei Umeta (Hokkaido Univ.) ♯
Naofumi Honda (Hokkaido Univ.)
The edge of the wedge theorem for holomorphic functions with growth conditions of exponential type and Laplace hyperfunctions ····· 15

14:30–15:30 Talk invited by Functional Analysis Section

Akzunori Ando (Univ. of Tsukuba)♯ Inverse scattering problem for discrete Schrödinger operators on the hexagonal lattice

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Statistics and Probability

March 20th (Wed) Conference Room IX

9:30–12:00

1 Yukiko Iwata (Univ. of Tokyo)♯ Stochastic perturbations of one-dimensional maps ····· 15

2 Yu Ito (Kyoto Univ.)♯ Integrals along rough paths via fractional calculus ····· 15

3 Makoto Nakashima (Univ. of Tsukuba)♯ Super-Brownian motion in random environment ····· 15

4 Yuki Suzuki (Keio Univ.)* A diffusion process with a Brownian potential including a zero potential part ····· 15

5 Katusi Fukuyama (Kobe Univ.)* Optimal bound for the discrepancies of lacunary sequences ····· 5
Christoph Aistleitner (Graz Univ. Tech.)
Yukako Furuya (Hitachi, Ltd.)

6 Hiroaki Hata (Shizuoka Univ.)♯ Risk-sensitive portfolio optimization problems with a jump type stochastic factor model ····· 15

7 Kazufumi Fujimoto ♯ Expected utility maximization under incomplete information and with Cox-processes observations ····· 20
(Bank of Tokyo-Mitsubishi UFJ)

8 Teppei Ogihara (Osaka Univ.)♯ Maximum likelihood type and Bayes type estimation for diffusion processes with nonsynchronous observations ····· 20
Nakahiro Yoshida (Univ. of Tokyo)

14:30–15:30 Talk invited by Statistics and Probability Section

Daisuke Shiraishi (Kyoto Univ.)♯ Non-intersecting two-sided random walks

15:45–16:45 Talk invited by Statistics and Probability Section

Naoyuki Ichihara (Hiroshima Univ.)♯ Asymptotic problems for viscous Hamilton–Jacobi equations and stochastic control

March 21st (Thu) Conference Room IX

9:00–11:50

9 Satoshi Suzuki (Shimane Univ.)♯ Lagrange-type duality theorem and generator for quasiconvex programming ····· 15
Daishi Kuroiwa (Shimane Univ.)

10 Yusuke Saeki (Shimane Univ.)♯ On constraint qualification for DC programming problems ····· 15
Daishi Kuroiwa (Shimane Univ.)

11 Teruo Tanaka (Hiroshima City Univ.)♯ A partially observable Markov decision process under a fractional criterion ····· 10

12 Toshiharu Fujita (Kyushu Inst. of Tech.) ♯ Mutually dependent decision processes and Egg Dropping Problem ··· 15

13 Sigeo Aki (Kansai Univ.), Kiyoshi Inoue (Seikei Univ.) ♯ On distributions of the number of pattern occurrences in undirected graphical models ··· 10

14 Hironori Fujisawa (Inst. of Stat. Math.), Toshihiro Abe (Tokyo Univ. of Sci.) ♯ A family of skew-unimodal distributions with mode invariance ··· 15

15 Tamio Koyama (Kobe Univ.), Akimichi Takemura (Univ. of Tokyo) ♯ The evaluation of orthant probabilities utilizing the holonomic gradient method ··· 15

16 Satoshi Aoki (Kagoshima Univ. / JST CREST), Hidefumi Osugi (Rikkyo Univ. / JST CREST), Takayuki Hibi (Osaka Univ. / JST CREST) ♯ Markov chain Monte Carlo methods for the regular two-level fractional factorial designs and cut ideals ··· 20

17 Sanpei Kageyama (Hiroshima Inst. of Tech.), Kazuki Matsubara (Hiroshima Univ.) ♯ Complete existence of 3 pairwise additive BIB designs ··· 15

18 Hiromu Yumiba (Int. Inst. for Nat. Sci.), Yoshifumi Hyodo (Okayama Univ. of Sci. / Int. Inst. for Nat. Sci.), Masahide Kuwada (Int. Inst. for Nat. Sci.) ♯ Existence conditions for balanced fractional factorial designs of resolution V derived from simple arrays with three symbols (II) ··· 15

13:20–14:30

19 Kazuyoshi Yata (Univ. of Tsukuba), Makoto Aoshima (Univ. of Tsukuba) ♯ Estimation on eigenvalues for high-dimensional data having power spiked model ··· 15

20 Hiroto Hyakutake (Kyushu Univ.), Kengo Ueda (Kyushu Univ.) ♯ On estimation of parameters in heteroscedastic random effects models ··· 10

21 Shoichi Sasabuchi (Kyushu Univ.) ♯ On the powers of tests for homogeneity of regression coefficient vectors under synchronized order restrictions ··· 10

22 Fumiya Akashi (Waseda Univ.), Masanobu Taniguchi (Waseda Univ.) ♯ Empirical likelihood approach for stable processes ··· 10

23 Yan Liu (Waseda Univ.), Masanobu Taniguchi (Waseda Univ.) ♯ Hypothesis testing for vector stable processes ··· 10

24 Kenta Hamada (Waseda Univ.), Masanobu Taniguchi (Waseda Univ.) ♯ Constrained Whittle estimators and shrinked Whittle estimators ··· 10

March 22nd (Fri) Conference Room IX

9:30–12:00

25 Yoshihiko Maesono (Kyushu Univ.), Lu Mengxin (Kyushu Univ.) ♯ Smoothing of sign test and approximation of its p-value ··· 15

26 Gaku Igarashi (Hokkaido Univ.), Yoshihide Kakizawa (Hokkaido Univ.) ♯ Re-formulation of the inverse Gaussian, reciprocal inverse Gaussian and Birnbaum–Saunders kernel estimators ··· 15

27 Shuya Kanagawa (Tokyo City Univ.)♯ Asymptotic expansion for sums of Hilbert space valued random variables and its application to V-statistics ····· 15

28 Shintaro Hashimoto (Univ. of Tsukuba)♯
Ken-ichi Koike (Univ. of Tsukuba)
Information inequality for the Bayes risk ····· 15

29 Yiling Lin (Nagoya Univ.)♯
Miwako Mishima (Gifu Univ.)
Masakazu Jimbo (Nagoya Univ.)
Optimal equi-difference conflict-avoiding codes of length $n = 2^a 3^b m$ and weight four ····· 18

30 Hiroyuki Kurakami ♯ (Tokyo Univ. of Sci.)
Kouji Tahata (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Generalized marginal cumulative logistic model and decomposition of marginal symmetry for multi-way tables ····· 10

31 Yusuke Saigusa (Tokyo Univ. of Sci.)♯
Kouji Tahata (Tokyo Univ. of Sci.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Extended palindromic symmetry models for square contingency tables with ordered categories ····· 10

32 Yayoi Tanaka (Tokyo Univ. of Sci.)♯
Kouji Yamamoto (Osaka Univ.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Sum-symmetry model and its decomposition for square contingency tables with ordered categories ····· 10

33 Fumika Shimada (Tokyo Univ. of Sci.)♯
Kouji Yamamoto (Osaka Univ.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Measure for symmetry using collapsed tables in square contingency tables with ordered categories ····· 10

34 Motoki Ohama (Tokyo Univ. of Sci.)♯
Kouji Yamamoto (Osaka Univ.)
Sadao Tomizawa (Tokyo Univ. of Sci.)
Decompositions of symmetry using generalized linear diagonals-parameter symmetry model for square contingency tables ····· 10

14:30–15:30 Talk invited by Statistics and Probability Section

Masanori Sawa (Nagoya Univ.)♯ The theory of cubature formulae and designs in numerical analysis, algebraic combinatorics and mathematical statistics

15:45–16:45 Award Lecture for 2012 Analysis Prize

Masanobu Taniguchi (Waseda Univ.)♯ Non-standard analysis for time series

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Applied Mathematics

March 20th (Wed) Conference Room VI

9:30–11:35

1 Atsuhiro Nakamoto ♯ (Yokohama Nat. Univ.)
Kenta Ozeki (Nat. Inst. of Information / JST ERATO)
Kenta Noguchi (Keio Univ.)
General extension to even triangulations ····· 15

2 Atsuhiro Nakamoto ♯ (Yokohama Nat. Univ.)
Tsubasa Yamaguchi (Yokohama Nat. Univ.)
Generating theorem for even multi-triangulations on the torus ····· 15

3 Atsuhiro Nakamoto ♯ (Yokohama Nat. Univ.)
Momoko Kobayashi (Yokohama Nat. Univ.)
On 3-list-coloring of bipartite graphs on closed surfaces ····· 15

4 Atsuhiro Nakamoto ♯ (Yokohama Nat. Univ.)
Kenta Ozeki (Nat. Inst. of Information / JST ERATO)
Kenta Noguchi (Keio Univ.)
A cyclic 4-colorability of graphs on surfaces ····· 10

5 Akira Saito (Nihon Univ.) ♯
The local Chvátal–Erdős condition and 2-factors in graphs ····· 15

6 Kenjiro Ogawa (Tokai Univ.) ♯
Morimasa Tsuchiya (Tokai Univ.)
Satoshi Tagusari (Tokai Univ.)
On strict-semi-bound graph ····· 10

7 Michitaka Furuya (Tokyo Univ. of Sci.) ♯
Upper bounds on the diameter of domination dot-critical graphs with given connectivity ····· 15

8 Kazunori Matsuda (Nagoya Univ.) *
Properties of weakly closed graphs ····· 10

14:15–16:25

9 Ryota Matsubara ♯ (Shibaura Inst. of Tech.)
Haruhide Matsuda (Shibaura Inst. of Tech.)
On trees with constraints on the leaf degree ····· 10

10 Shoichi Tsuchiya (Tokyo Univ. of Sci.) ♯
Michitaka Furuya (Tokyo Univ. of Sci.)
On forbidden pairs implying a homeomorphically irreducible spanning tree ····· 15

11 Midori Kobayashi (Univ. of Shizuoka) ♯
Gisaku Nakamura (Univ. of Shizuoka*)
Dudeney's Bench problem ····· 10

12 Kazuhiko Ushio (Kinki Univ.) ♯
Balanced (C_9, C_{12})-foil designs and related designs ····· 15

13 Kiyoshi Ando (Univ. of Electro-Comm.) ♯
Some degree sum and forbidden subgraph conditions for k-contractible edges ····· 15

14 Iwao Sato (Oyama Nat. Coll. of Tech.) ♯
A generalized Bartholdi zeta function for a hypergraph ····· 15

15 Kenji Kashiwabara (Univ. of Tokyo) ♯
Fulkerson conjecture for cubic graphs, and clutter theory ····· 15

16 Guantao Chen (Georgia State Univ.) ♯
Ryo Hazama (Keio Univ.)
Katsuhiro Ota (Keio Univ.)
Clique minors, chromatic numbers for degree sequences in graphs ···· 15

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

Jun Fujisawa (Keio Univ.) ♯
On the existence of good structures in graphs

March 21st (Thu) Conference Room VI

9:30–11:35

17 Naoki Matsumoto (Yokohama Nat. Univ.) ♯ The number of diagonal transformations in pentangulations on the sphere ····· 15

18 Masahiro Hachimori (Univ. of Tsukuba) Discrete Voronoi games and related games on graphs, and Nash equilibria ····· 15

19 Shinya Fujita (Maebashi Inst. of Tech.) ♯, Linda Lesniak (Drew Univ.) Revisit of Erdős–Gallai's theorem on the circumference of a graph ···· 10

20 Yoshiyuki Mori (Okayama Univ. of Sci.) ♯, Ryuichi Sawae (Okayama Univ. of Sci.), Daisuke Ishi (Okayama Univ. of Sci.) A fast calculation of $a^{p-1} \equiv 1 \pmod{p^2}$ ····· 10

21 Yoshiyuki Mori (Okayama Univ. of Sci.) ♯, Ryuichi Sawae (Okayama Univ. of Sci.), Miho Aoki (Shimane Univ.), Daisuke Ishii (Okayama Univ. of Sci.) On a calculation of the largest prime divisor of an odd perfect number ····· 10

22 Yukiko Fukukawa (Osaka City Univ.) ♯ Generalization of the Catalan number ····· 10

23 Yutaka Sueyoshi (Nagasaki Univ.) *, Ryuichi Harasawa (Nagasaki Univ.), Aichi Kudo (Nagasaki Univ.) On the maximal value of break intervals of equitable round-robin tournaments with home-away assignments ····· 20

24 Chie Nara (Tokai Univ.) ♯, Jin-ichi Itoh (Kumamoto Univ.), Nikolai Dolbilin (Steklov Math. Inst.) Affine classes of 3-dimensional parallelohedra —Their parametrization and structure— ····· 15

13:15–14:15 Talk invited by Applied Mathematics Section

Hayato Chiba (Kyushu Univ.) ♯ A spectral theory of linear operators on a Gelfand triplet and its application to the dynamics of coupled oscillators

March 22nd (Fri) Conference Room VI

9:00–11:45

25 Hirotaka Ebisui (Oval Research Center) ♯ Example of error and difficulty in hard-soft PG manage and color-phaze tecnology by Pachikuri multistructured mapping form using a sparial multi-phaze positon in stratified sosiety ····· 10

26 Shunzi Horiguchi (Niigata Sangyo Univ.) ♯ On relations between the enhancement of Tsuchikura–Horiguchi's (Yoshimasu Murase–Newton type's) recurrence formulas concerning algebraic equations and Horner method ····· 15

27 Shy Der Lin (Chung Yuan Christian Univ.) ♯, Chia-Hung Lu (Chung Yuan Christian Univ.) Laplace transform of the fractional derivative and its applications ···· 15

28 Fumio Nakajima (Iwate Univ.) * A mathematical approach to the policy of Atomic energy ····· 15

29 Takehiko Kinoshita (Kyoto Univ.) ♯, Yoshitaka Watanabe (Kyushu Univ.), Mitsuhiro T. Nakao (Sasebo Nat. Coll. of Tech.) A numerical verification of the invertivility for elliptic partial differential operators ····· 15

30 Akitoshi Takayasu (Waseda Univ.) ♯
Xuefeng Liu (Waseda Univ.)
Shin'ichi Oishi (Waseda Univ. / JST CREST)
Verified computations for semilinear elliptic boundary value problems on arbitrary polygonal domains ····· 15

31 Mikio Murata ♯ (Tokyo Univ. of Agri. and Tech.)
The direct method to transform parabolic differential equations into cellular automata ····· 15

32 Koya Sakakibara (Meiji Univ.) ♯
Masashi Katsurada (Meiji Univ.)
Hidenori Ogata (Univ. of Electro-Comm.)
An application of a method approximating holomorphic functions by linear combinations of $1/(z-\zeta)$: calculating the inverse of conformal mappings ····· 15

33 Takashi Sakajo ♯ (Hokkaido Univ. / JST CREST)
Tomoo Yokoyama (Hokkaido Univ. / JST CREST)
Word representation of streamline topologies for structurally stable vortex flows in multiply connected domains ····· 15

14:15–16:30

34 Takahito Kashiwabara (Univ. of Tokyo) ♯
Some remarks on Navier–Stokes equations with leak boundary condition ····· 15

35 Masahisa Tabata (Waseda Univ.) ♯
Equivalence of an upwind FEM and a characteristics FEM ····· 15

36 Kenta Uemichi (Kwansei Gakuin Univ.) ♯
Koichi Osaki (Kwansei Gakuin Univ.)
A mathematical model for comb construction of honeybees ····· 15

37 Masaji Watanabe (Okayama Univ.) ♯
Fusako Kawai (Kyoto Inst. Tech.)
Study on microbial depolymerization processes of exogenous type ···· 15

38 Hideki Murakawa (Kyushu Univ.) ♯
Arnaud Ducrot (Univ. Bordeaux 2)
Frank Le Foll (Univ. de Le Havre)
Pierre Magal (Univ. Bordeaux 2)
Jennifer Pasquier (Univ. de Le Havre)
Glenn F. Webb (Vanderbilt Univ.)
On spatiotemporal patterns in a cell population model ····· 15

39 Hiroko Yamamoto (Tohoku Univ.) ♯
Izumi Takagi (Tohoku Univ.)
Concentration point in the ground state of a reaction-diffusion equation in heterogeneous media ····· 15

40 Kazuyuki Yagasaki (Hiroshima Univ.) ♯
G. H. M. van der Heijden (Univ. College London)
Existence of horseshoe dynamics in an asymmetric heavy top ····· 15

41 Yasuaki Hiraoka (Kyushu Univ.) ♯
Protein structure analysis and persistent homology ····· 15

16:45–17:45 Talk invited by Applied Mathematics Section

Takeshi Ohtsuka (Gunma Univ.) ♯
A level set formulation for evolving spirals and their behavior in spiral crystal growth

Topology

March 20th (Wed) Conference Room II

9:30–12:00

1 Shin Satoh (Kobe Univ.) * OU sequence of knot diagram and its application 10
Ryuji Higa (Kobe Univ.)
Yasutaka Nakanishi (Kobe Univ.)
Takuto Yamamoto (Kobe Univ.)

2 Taizo Kanenobu (Osaka City Univ.) ♯ Links which are related by a band surgery 10
Hiromasa Moriuchi (Osaka City Univ.)

3 Takuji Nakamura ♯ The number of colors in a Fox coloring 10
(Osaka Electro-Comm. Univ.)
Yasutaku Nakanishi (Kobe Univ.)
Shin Satoh (Kobe Univ.)

4 Makoto Ozawa (Komazawa Univ.) ♯ Coexistence of coiled surfaces and spanning surfaces for knots and links 15

5 Makoto Ozawa (Komazawa Univ.) ♯ A destabilized bridge sphere of bridge number arbitrarily higher than the bridge number of the knot 10
Kazuto Takao (Osaka Univ.)

6 Masakazu Teragaito (Hiroshima Univ.) ♯ Left-orderable fundamental group and Dehn surgery on twist knots ... 10
Ryoto Hakamata (Hiroshima Univ.)

7 Kazuhiro Ichihara (Nihon Univ.) ♯ Exceptional surgeries on alternating knots 10
Hidetoshi Masai (Tokyo Tech)

8 Toshifumi Tanaka (Gifu Univ.) ♯ On the maximal Thurston–Bennequin number for knots in a spatial graph 10

9 Isamu Miyato (Nagoya Inst. of Tech.) ♯ On a certain parity of the Alexander polynomial 10

10 Sakie Suzuki (Kyoto Univ.) ♯ Bing doubling and the colored Jones polynomial 10

11 Takefumi Nosaka (Kyushu Univ.) ♯ Topological interpretation of link invariants from finite quandles I; main theorem 10

12 Takefumi Nosaka (Kyushu Univ.) ♯ Topological interpretation of link invariants from finite quandles II; some calculations 10

13 Takefumi Nosaka (Kyushu Univ.) ♯ On third homologies of groups and of quandles via Dijkgraaf–Witten invariant and Inoue–Kabaya map 10

14 Rei Inoue (Chiba Univ.) ♯ Cluster algebra and complex volume of 2-bridge links 15
Kazuhiro Hikami (Kyushu Univ.)

14:30–15:30 Talk invited by Topology Section

Takahiro Kitayama (Univ. of Tokyo) ♯ Torsion functions on character varieties and an extension of Culler–Shalen theory

15:45–16:45 Talk invited by Topology Section

Makoto Sakuma (Hiroshima Univ.) ♯ Simple loops on bridge spheres and Heegaard surfaces

March 21st (Thu) Conference Room II

9:30–12:00

15 Hiroki Takahashi (Kyoto Univ.) * Emergence of attractors at the first bifurcation of the Hénon family 15

16 Katsuhisa Koshino (Univ. of Tsukuba) * A Hilbert cube compactification of a function space into a 1-dimensional locally compact AR with the compact-open topology 20
Katsuro Sakai (Univ. of Tsukuba)

17 Wataru Yuasa (Tokyo Tech) * Hyperelliptic Goldman Lie algebra and its abelianization 15

18 Yusuke Kuno (Tsuda Coll.) * An extension of the Earle class to the Ptolemy groupoid 10
Robert Penner (Aarhus Univ./Caltech)
Vladimir Turaev (Indiana Univ.)

19 Takuya Sakasai (Univ. of Tokyo) ♯ Computations of Euler characteristics of graph homologies in low weights 15
Masaaki Suzuki (Akita Univ.)
Shigeyuki Morita (Univ. of Tokyo*)

20 Tatsuro Shimizu (Univ. of Tokyo) ♯ An extension of degree one finite type invariant for rational homology 3-sphres to correspondences. 15

21 Tomohiko Ishida (Univ. of Tokyo) ♯ Quasi-morphisms on the group of area-preserving diffeomorphisms of the 2-disk 10

22 Hidetoshi Masai (Tokyo Tech) ♯ On commensurability of fibrations on a hyperbolic 3-manifold 10

23 Kenta Hayano (Osaka Univ.) ♯ Multisections of Lefschetz fibrations via mapping class groups 15
Refik İnanç Baykur
(Max Planck Inst. for Math./Brandeis Univ.)

24 Naoyuki Monden (Kyoto Univ.) ♯ Lefschetz fibrations with small slope 15

13:30–14:30 Talk invited by Topology Section

Kouichi Yasui (Hiroshima Univ.) ♯ Corks and exotic 4-manifolds

March 22nd (Fri) Conference Room II

10:15–11:50

25 Tadayuki Haraguchi * Long exact sequences for de Rham cohomology of diffeological spaces 15
(Internat. Pacific Univ.)

26 Masaki Nakagawa (Okayama Univ.) * On the generalization of the Schur P, Q-functions which give the basis for the generalized (co)homology of the loop spaces on classical groups 15
Hiroshi Naruse (Okayama Univ.)

27 Takahiro Matsushita (Univ. of Tokyo) * Fundamental groups of neighborhood complexes 10

28 Yusuke Kawamoto * Higher homotopy commutativity of H-spaces and the cyclohedra 10
(Nat. Defense Acad. of Japan)

29 Miho Hatanaka (Osaka City Univ.) ♯ The uniqueness of decompositions of a (topological) toric manifold 10

30 Yukiko Fukukawa (Osaka City Univ.) ♯ The ring structure of the equivariant cohomology ring of the Peterson variety 10
Megumi Harada (MacMaster Univ.)
Mikiya Masuda (Osaka City Univ.)

31 Takahito Naito (Shinshu Univ.)♯ On the loop coproducts of the relative loop spaces ····· 10

32 Kohei Tanaka (Shinshu Univ.)♯ A model structure on the category of small categories related to coverings ····· 15

15:00–16:35

33 Atsuhide Mori (Osaka City Univ.)* High dimensional confoliations and leafwise symplectic foliations ····· 15

34 Tomonori Fukunaga (Hokkaido Univ.)* Evolute of fronts in the Euclidean plane ····· 20
Masatomo Takahashi (Muroran Inst. of Tech.)

35 Shunsuke Ichiki (Yokohama Nat. Univ.)♯ Distance-squared mappings ····· 15

36 Tomoo Yokoyama (Hokkaido Univ.)♯ Almost periodic, recurrent, non-wandering properties for flows and foliations ····· 15

37 Shin Kiriki (Kyoto Univ. of Edu.)♯ C^2-robust heterodimensional tangencies ····· 15
Teruhiko Soma (Tokyo Metro. Univ.)

38 Yusuke Mizota (Kyushu Univ.)♯ Improving estimate of the highest degree of liftable vector fields ····· 15

Infinite Analysis

March 22nd (Fri) Conference Room VII

9:30–11:45

1 Kanehisa Takasaki (Kyoto Univ.)♯ Melting crystal model and Ablowitz–Ladik hierarchy ····· 15

2 Hajime Nagoya (Kobe Univ.)♯ From Gauss to quantum Painlevé ····· 20

3 Shin Isojima (Hosei Univ.)♯ Ultradiscrete Ai function with parity variables and the number of restricted partitions ····· 15
Junkichi Satsuma (Aoyama Gakuin Univ.)
Tetsuji Tokihiro (Univ. of Tokyo)

4 Gen Kuroki (Tohoku Univ.)♯ Quantized birational action of the product $\widetilde{W}(A^{(1)}_{m-1}) \times \widetilde{W}(A^{(1)}_{n-1})$ of the extended affine Weyl groups for coprime m, n ····· 20

5 Yoko Shigyo (Tsuda Coll.)♯ On addition formulae of BKP hierarchy ····· 15

6 Tetsu Masuda (Aoyama Gakuin Univ.)♯ A q-analogue of Sasano systems ····· 15

7 Takao Suzuki (Kinki Univ.)♯ 6-dimensional Painlevé equations and their particular solutions in terms of rigid equations ····· 20

8 Yusuke Ikawa (Kobe Univ.)♯ Hypergeometric solutions for the q-Painlevé equation of type $E^{(1)}_6$ by Padé method ····· 15

14:15–15:35

9 Junichi Shiraishi (Univ. of Tokyo)♯ A conjecture about Macdonald polynomials of type B_2 ····· 15

10 Masato Okado (Osaka Univ.)♯, Atsuo Kuniba (Univ. of Tokyo) Quantum coordinate ring and 3D reflection equation ····· 20

11 Katsuyuki Naoi (Univ. of Tokyo)♯ Graded limits of minimal affinizations over a quantum loop algebra ····· 15

12 Yosuke Saito (Tohoku Univ.)♯ Elliptic Ding–Iohara algebra and the free field realization of the elliptic Macdonald operator ····· 15

13 Yosuke Saito (Tohoku Univ.)♯ Elliptic q-Virasoro algebra and its free field realization ····· 15

15:45–16:45 Talk invited by Infinite Analysis Special Session

Zengo Tsuboi (Humboldt-Univ. zu Berlin)♯ Baxter Q-operators and tau-function for quantum integrable systems

March 23rd (Sat) Conference Room VII

9:45–11:40

14 Diogo Kendy Matsumoto (Waseda Univ.)♯, Youichi Shibukawa (Hokkaido Univ.) Idempotent dynamical braiding maps and dynamical semigroups with left unit ····· 15

15 Choon-Lin Ho (Tamkang Univ.)♯, Ryu Sasaki (Kyoto Univ.), Kouichi Takemura (Chuo Univ.) Confluence of apparent singularities in multi-indexed orthogonal polynomials: the Jacobi case ····· 15

16 Genki Shibukawa (Kyushu Univ.)♯ Operator orderings and Meixner–Pollaczek polynomials ····· 15

17 Yoshiaki Goto (Hokkaido Univ.)♯ Twisted period relation for Lauricella's F_C ····· 15

18 Kohei Motegi (Okayama Inst. for Quant. Phy.)♯, Kazumitsu Sakai (Univ. of Tokyo), Jun Sato (Ochanomizu Univ.) Quantum inverse scattering approach to the totally asymmetric simple exclusion process ····· 15

19 Shu Oi (Rikkyo Univ.)♯, Kimio Ueno (Waseda Univ.) The Riemann–Hilbert problem and the connection problem of the KZ equation ····· 20

20 Shu Oi (Rikkyo Univ.)♯, Kimio Ueno (Waseda Univ.) The hexagon relations for dilogarithms and the Riemann–Hilbert problem ····· 20

14:30–15:30 Talk invited by Infinite Analysis Special Session

Kentaro Nagao (Nagoya Univ.) Quivers with potential, 3d Calabi–Yau categories and the cohomological Hall algebras

Information for Speakers

The Organizing Committee apologizes that it had to cut the duration of contributed talks because of technical reasons. Since the schedule is very tight, we ask the speakers to strictly keep time. A bell will be rung when 2/3 of the assigned time has passed. A second bell will be rung as soon as the time is up, and the speaker has to leave the stage. The talks with $*$ mark are presented through document camera, while $\sharp$ marks denote PC presentations. The speakers with $\star$ marks are professors emeriti. If you find anything wrong in the program, do not hesitate to inform the Chair of Organizing Committee by sending e-mail to the address `program@mathsoc.jp`.

Each conference room is equipped with a black board, a document camera, and a projector for PC presentation. You are asked to use your own PC for a PC presentation. The time for connecting your PC to the projector is included in the assigned duration of your talk. You are recommended to check beforehand if your PC can be connected to the projector in the conference room. We strongly advise you to prepare an alternative method to present your talk such as printed sheets for the document camera in case your PC does not fit to the projector.

Information for Participants

Smoking is not allowed in any building on the Kyoto University.

Using Wi-Fi Networks

Kyoto University is a partner of the eduroam activity in Japan. It provides you Wi-Fi connection to the Internet connection by your eduroam ID in a limited number of places such as the COOP Cafeteria in Yoshida South Campus. You can find a brief account for the service on the URL

`http://mathsoc.jp/en/meeting/kyoto13mar-network.html`

Official Party

Time: March 21st (Thu), 18:00–20:00
Venue: Clock Tower Centennial Hall, Internationa Conference Hall (2F)
Participants are asked to pay 5,000 JPY at the party.

Directions

2013 MSJ ANNUAL MEETING

Dates : March 20th (Wed)–23rd (Sat), 2013
Venue : Kyoto University
Address : Yoshida Nihonmatsu-cho, Sakyo-ku, Kyoto
Contact to : Department of Mathematics and RIMS, Kyoto Univeristy
Kitashirakawa Oiwake-cho, Sakyo-ku, Kyoto
E-mail kyoto13mar@mathsoc.jp
During session : Phone +81 (0) 75 753 2035
Fax +81 (0) 75 753 2035
Web Site : http://mathsoc.jp/en/meeting/kyoto13mar/

Conference Rooms

	Place	Research Sections
Conference Room I	Yoshida-S Cmps Bldg No. 4, Rm 4C30	Algebra, Featured Invited Talks
Conference Room II	Yoshida-S Cmps Bldg No. 4, Rm 4C31	Topology
Conference Room III	Yoshida-S Cmps Bldg No. 4, Rm 4C21	Geometry, Featured Invited Talks
Conference Room IV	Yoshida-S Cmps Bldg No. 4, Rm 4C11	Functional Equations, Featured Invited Talk
Conference Room V	Acad Ctr for Computing and Media Studies, B1 Lecture Room	Functional Analysis
Conference Room VI	Yoshida-S Cmps Acad Ctr Bldg, Rm CW41	Applied Mathematics
Conference Room VII	Yoshida-S Cmps Acad Ctr Bldg, Rm CW31	Foundation of Mathematics and History of Mathematics, Infinite Analysis
Conference Room VIII	Yoshida-S Cmps Acad Ctr Bldg, Rm CS11	Real Analysis, Complex Analysis
Conference Room IX	Yoshida-S Cmps Acad Ctr Bldg, Rm CS01	Statistics and Probability
Plenary Talks	Clock Tower Centennial Hall, Centennial Hall (1F)	
Open Lectures for Citizens	Yoshida-S Cmps Bldg No. 4, Rm 4C11	

Abbreviation rule for conference rooms: C=Common=共 (Kyo), E=East=東 (Higashi), W=West=西 (Nishi), S=South=南 (Minami), N=North=北 (Kita)

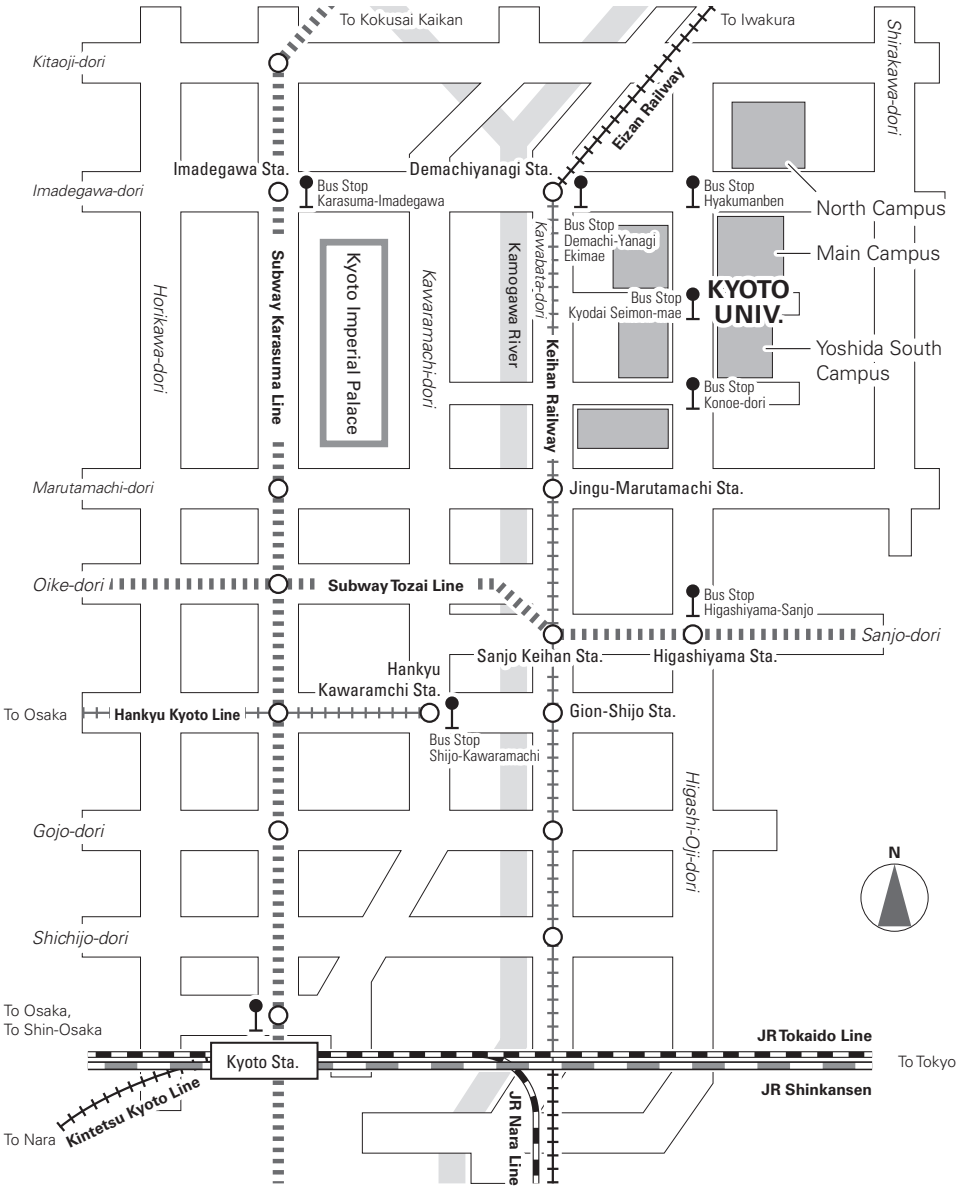
You can find more detailed accounts for the conference rooms at the URL
http://mathsoc.jp/en/meeting/kyoto13mar/

Other Rooms

Extended Abstracts and Membership	Grad Sch of Human and Environmental Studies Bldg, Rm 226
Discussion Rooms	Yoshida-S Cmps Bldg No. 4, Rm 4C22, Yoshida-S Cmps Acad Ctr Bldg, Rm CS21
Book Display and Sale	Yoshida-S Cmps Acad Ctr Bldg, Rm CN11/CN12
Executive Committee, MSJ President	Grad Sch of Human and Environmental Studies Bldg, Rm 222
Official Party	Clock Tower Centennial Hall, Internationa Conference Hall (2F)

Access Map

From Kyoto station to Kyoto University

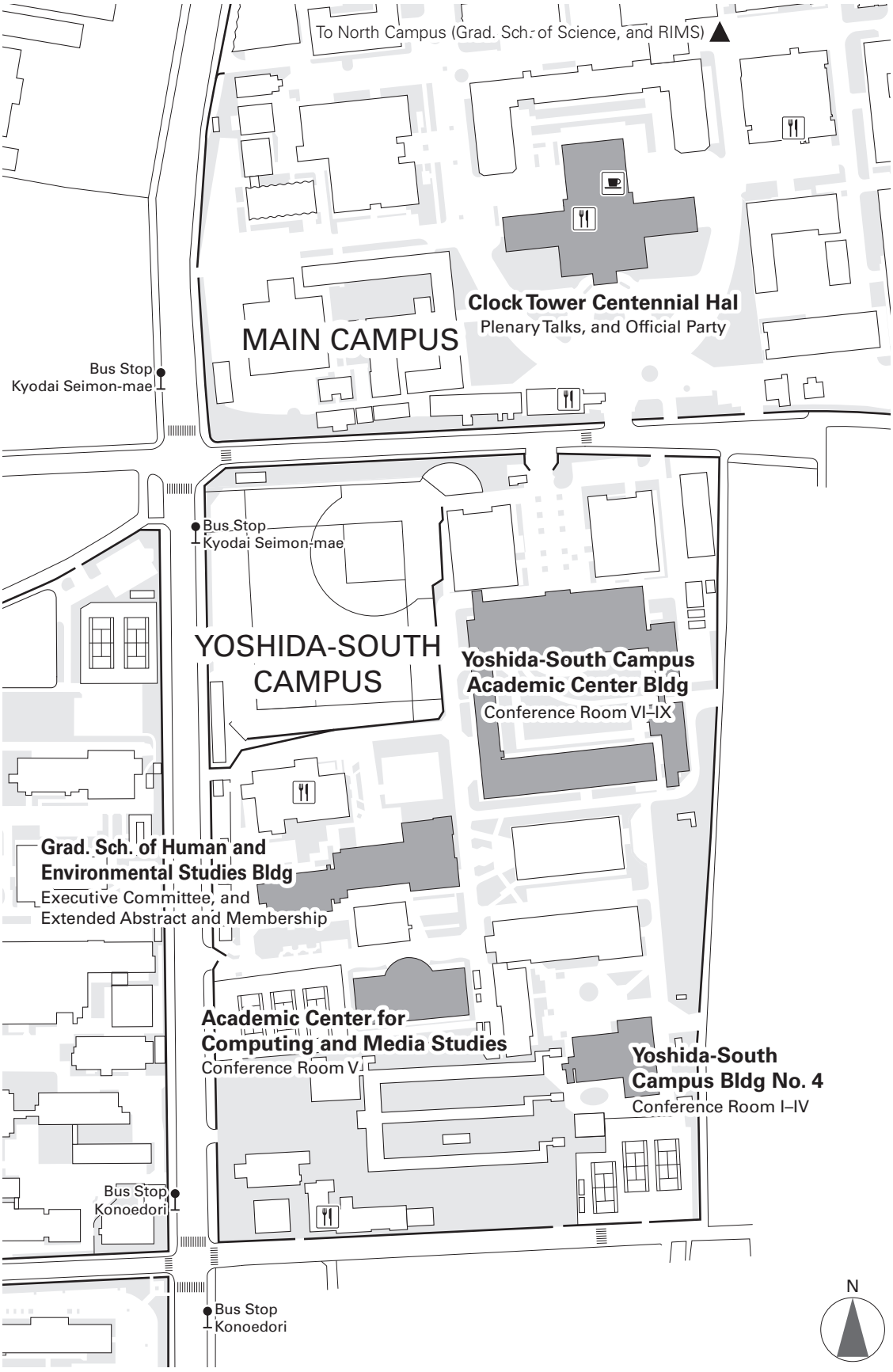


Station	Bus Stop (get on)	Bus Stop (get off)
Kyoto Station (JR / Kintetsu Railway)	Kyoto Station — D2 Route 206: Higashiyama-dori – Kitaoji-dori Bus Terminal	Kyodai Seimon-mae
Kawaramachi Station (Hankyu Railway)	Shijo-Kawaramachi — F Route 201: Gion – Hyakumanben Route 31: Kumano – Iwakura	
Demachiyanagi Station (Keihan Railway)	Demachi-Yanagi Ekimae Route 201: Gion – Mibu	
Imadegawa Station (Subway Karasuma Line)	Karasuma-Imadegawa Ekimae Route 201: Hyakumanben – Gion	
Higashiyama Station (Subway Tozai Line)	Higashiyama Sanjo Route 201: Hyakumanben – Senbon-Imadegawa Route 206: Takano – Senbon-Kitaoji Route 31: Shugakuin – Iwakura	

To use the bus within the city centre, the fare is 220yen.

Final: 2013/2/7

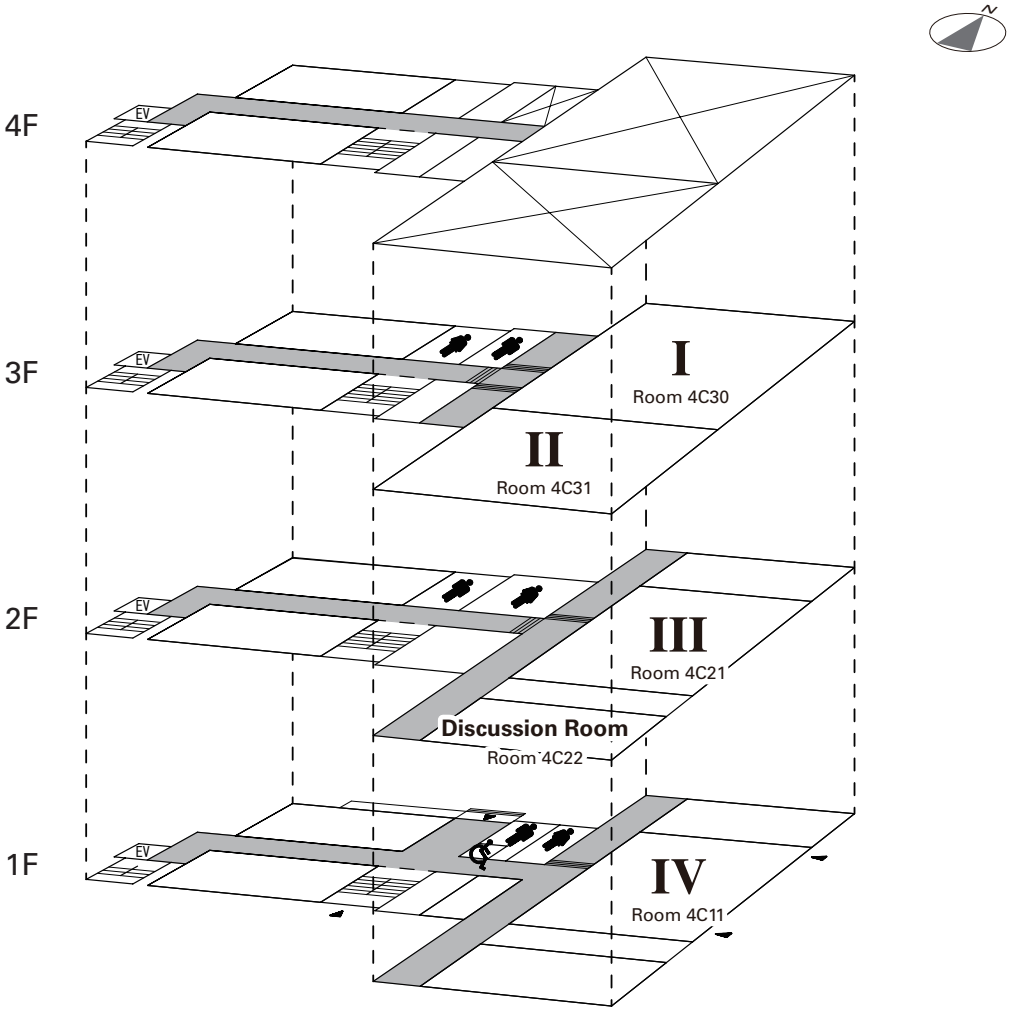
Kyoto University, Yoshida-South Campus, and part of Main Campus



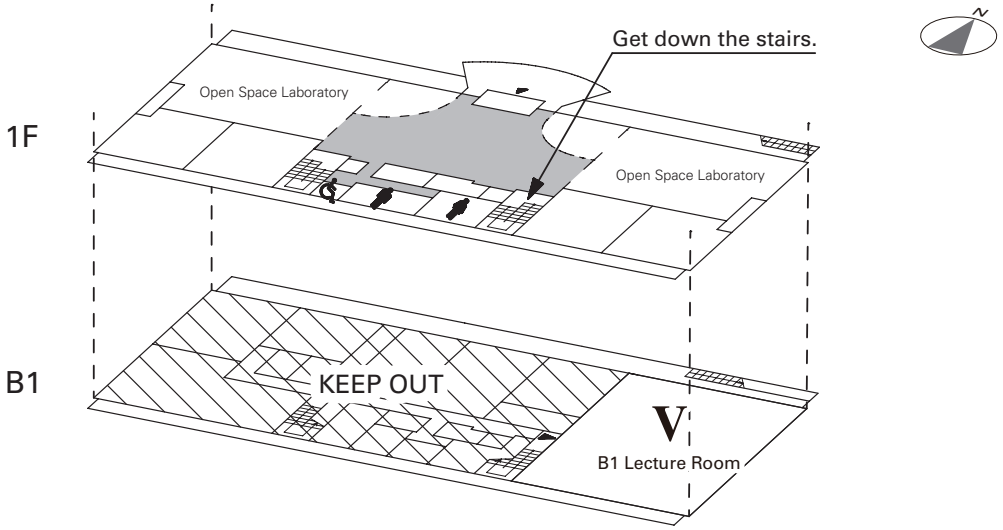
Final: 2013/2/7

Floor Maps

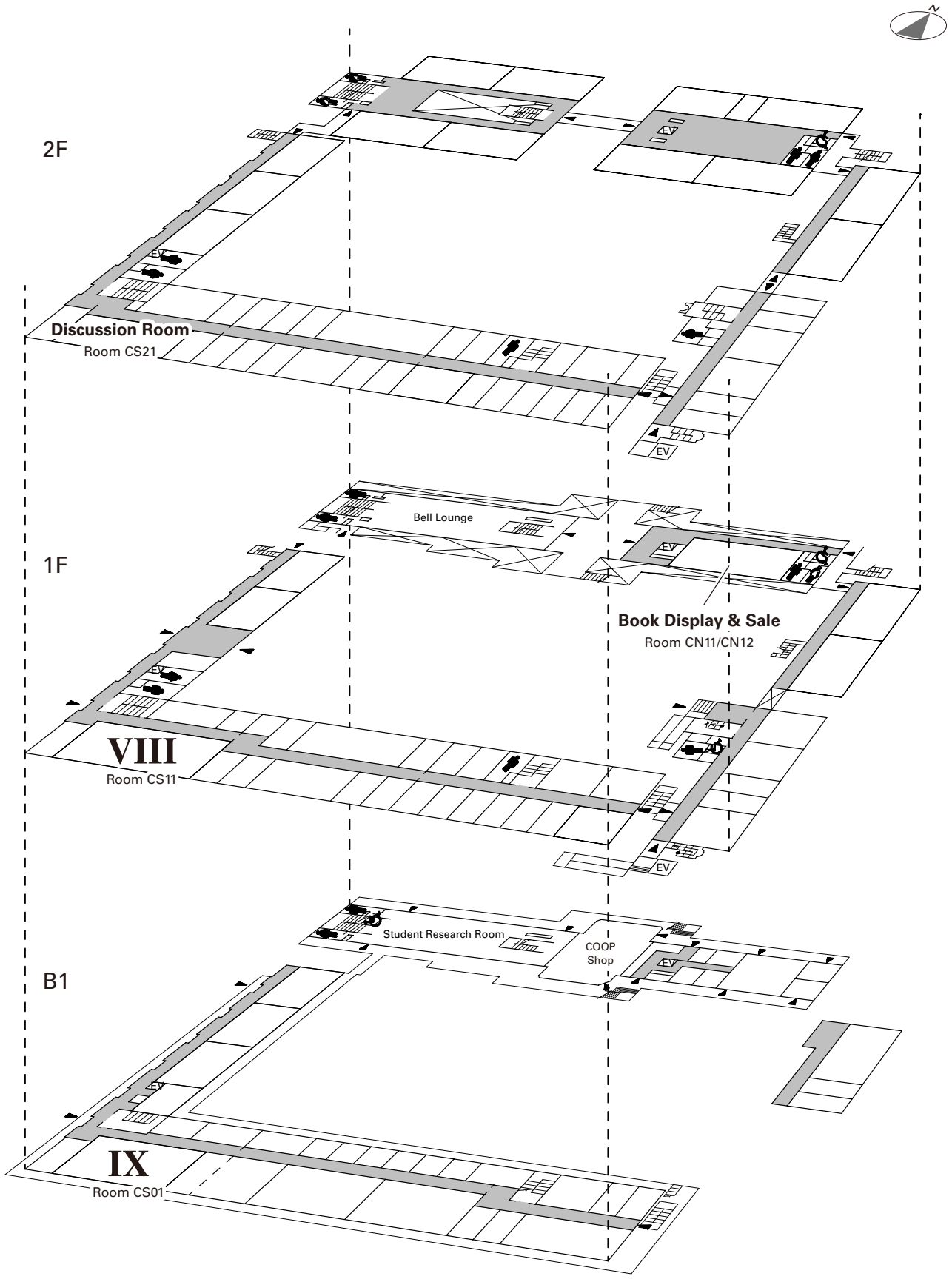
Yoshida-South Campus Bldg No. 4



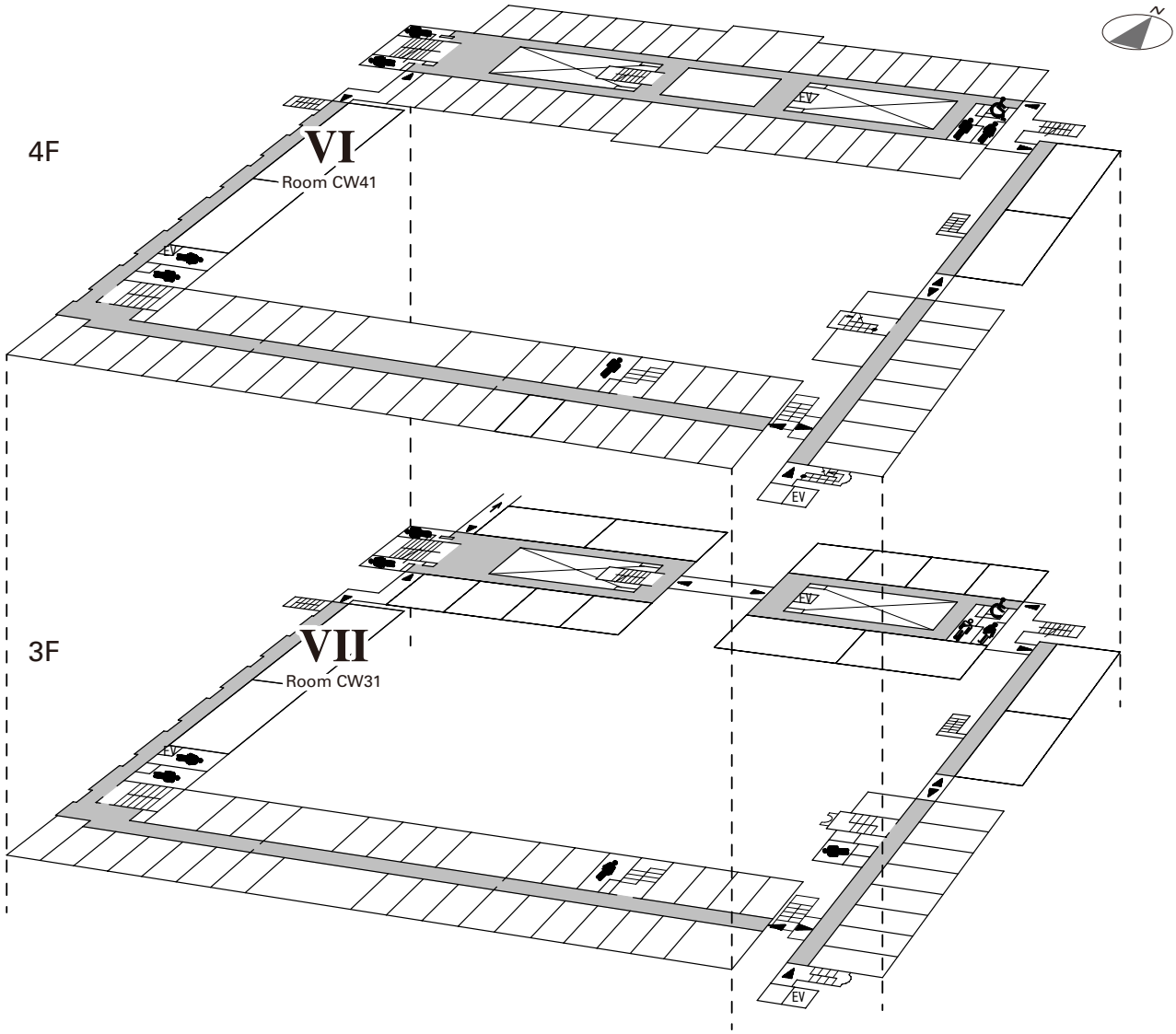
Academic Center for Computing and Media Studies



Yoshida-South Campus Academic Center Bldg (B1–2F)



Yoshida-South Campus Academic Center Bldg (3F–4F)



Graduate School of Human and Evironmental Studies Bldg