

2012 Mathematical Society of Japan

AUTUMN MEETING

Dates: September 18th–21st, 2012

Venue: Ito Campus, Kyushu University

Contact to: Faculty of Mathematics, Kyushu University
Motooka 744, Nishi-ku, Fukuoka

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Mathematical Society of Japan

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	I Room 2308	II Room 2307	III Room 2306	IV Room 2305	V Room 2304	VI Room 2407	VII Room 2406	VIII Room 2404	IX Room 2403	
18th (Tue)	Algebra 9:00–12:00 14:15–16:15	Complex Analysis 10:00–12:00 14:30–16:15	Functional Equations 9:00–12:00 14:15–16:15		Statistics and Probability 9:15–12:00 14:15–14:45	Applied Mathematics 9:30–12:00 14:15–16:40	Infinite Analysis 9:30–11:45 14:15–14:45	Geometry 9:00–12:00 14:15–16:00	Topology 9:15–12:00 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 16:30–17:30		Invited Talks 15:00–16:00 16:15–17:15	Invited Talk 16:50–17:50	Invited Talk 15:00–16:00	Invited Talk 16:15–17:15	Invited Talk 16:20–17:20	
19th (Wed)	Algebra 9:00–12:00	Complex Analysis 10:00–12:00 Invited Talk 13:15–14:15	Functional Equations 9:00–12:00 Invited Talk 13:15–14:15	Functional Analysis 9:45–11:50 Invited Talk 13:00–14:00	Statistics and Probability 9:15–12:00	Applied Mathematics 9:30–12:15	Infinite Analysis 10:30–11:50 Invited Talk 13:30–14:30	Geometry / Topology Invited Talks 10:50–11:50 13:15–14:15		
	MSJ Prizes Presentation (VIII + IX) (14:50–15:20)									
	Plenary Talks (VIII + IX) MSJ Autumn Prize Winner (15:30–16:30)									
	Kengo Hirachi (Univ. of Tokyo) (16:45–17:45)									
	Official Party (Inamori Center, Inamori Hall) (18:00–20:00)									
20th (Thu)	Algebra 10:00–11:30 14:15–16:45	Real Analysis 10:00–11:45 14:15–15:40	Functional Equations 9:00–12:00 14:15–16:15	Functional Analysis 9:30–11:50 14:15–16:30	Statistics and Probability 9:15–12:00	Applied Mathematics 9:30–12:00 Special Session 14:15–16:40	Found. of Math. and History of Math. 9:00–11:20 14:15–17:05	Geometry 9:00–12:00 14:15–16:15	Topology 9:30–11:45 14:15–15:40	
	Featured Invited Talks					13:00–14:00				
	Invited Talk 17:00–18:00	Invited Talk 15:50–16:50	Invited Talk 16:30–17:30	Invited Talk 16:30–17:30	Invited Talks 14:30–15:30 15:45–16:45	Invited Talk 16:50–17:50		Invited Talk 16:30–17:30	Invited Talk 16:00–17:00	
21st (Fri)	Algebra 9:00–11:00 14:15–15:45	Real Analysis 9:40–12:00 14:15–16:00	Functional Equations 9:00–12:00 14:15–16:30	Functional Analysis 9:30–11:50		Applied Mathematics 9:00–12:00 14:15–16:30	Found. of Math. and History of Math. 9:00–11:40		Topology 9:15–12:00	
	Featured Invited Talks					13:00–14:00				
	Invited Talks 11:00–12:00 15:45–16:45	Invited Talk 16:10–17:10	Invited Talk 16:45–17:45	Invited Talk 14:15–15:15		Invited Talk 16:45–17:45	Invited Talk 14:20–15:20			

MSJ–KMS Joint Meeting 2012 held on September 17th (Mon) is described at page 6.

All the Conference Rooms of the Autumn Meeting are located on the Ito Campus of Kyushu University, in Center Zone Building No. 2.

Plenary Talks

September 19th (Wed) Conference Room VIII + IX

- MSJ Autumn Prize Winner (15:30~16:30)
 Kengo Hirachi (Univ. of Tokyo)[#] Einstein equations and conformal invariants (16:45~17:45)

Featured Invited Talks

September 18th (Tue)

Conference Room IX

Guest Talk from Taiwan Mathematical Society

- Chin-Lung Wang (Nat. Taiwan Univ.) Quantum Leray–Hirsch and analytic continuations (13:00~14:00)

Conference Room II

- Shinichi Kobayashi (Tohoku Univ.)[#] p -adic approaches to the Birch and Swinnerton–Dyer conjecture (13:00~14:00)

September 20th (Thu)

Conference Room IX

- Kaoru Ono (Kyoto Univ.)* Spectral invariants for Hamiltonian diffeomorphisms and their applications (13:00~14:00)

Conference Room II

- Kenjiro Yanagi (Yamaguchi Univ.)[#] Progress of quantum information theory —From classical information to quantum information— (13:00~14:00)

Conference Room VI

- Hisashi Inaba (Univ. of Tokyo)[#] Mathematics of the basic reproduction number R_0 —Chasing a key parameter of population dynamics— (13:00~14:00)

September 21st (Fri)

Conference Room VI

- Yuji Tachikawa (Univ. of Tokyo)[#] Mathematics and supersymmetric quantum field theory ... (13:00~14:00)

Conference Room VII

- Yuichi Komori (Chiba Univ.)* Small talks on mathematical logic for mathematician (13:00~14:00)

Talks invited by Research Sections and Special Session

September 18th (Tue)

Algebra (Conference Room I)

Yoichi Mieda (Kyoto Univ.)[#] Toward generalization of the non-abelian Lubin–Tate theory
 (16:30~17:30)

Geometry (Conference Room VIII)

Toshihiro Shoda (Saga Univ.)[#] On Morse index of minimal surfaces (16:15~17:15)

Complex Analysis (Conference Room II)

Toshiyuki Sugawa (Tohoku Univ.)[#] Generalization of the Schwarzian derivative —Towards more
 invariance and higher orders— (16:30~17:30)

Functional Equations (Conference Room III)

Satoshi Tanaka (Okayama Univ. of Sci.)[#] Nonuniqueness of positive solutions of superlinear two-point
 boundary value problems —Symmetry-breaking of even positive solutions— (16:30~17:30)

Statistics and Probability (Conference Room V)

Toshihiro Uemura (Kansai Univ.)[#] On jump-type Markov processes and the associated Dirichlet
 forms (15:00~16:00)

Kazumasa Kuwada (Ochanomizu Univ.)[#] Coupling methods for heat distributions and curvature-di-
 mension conditions (16:15~17:15)

Applied Mathematics (Conference Room VI)

Yusuke Suzuki (Niigata Univ.)[#] 1-embedded graphs as seen from a viewpoint of re-embedding
 structures (16:50~17:50)

Topology (Conference Room IX)

Toshio Sumi (Kyushu Univ.)^{*} The Smith equivalence problem and Smith sets of Oliver
 groups (16:20~17:20)

Infinite Analysis (Conference Room VII)

Junichi Shiraishi (Univ. of Tokyo)[#] Vertex operators, Nekrasov partition functions and Macdonald
 polynomials (15:00~16:00)

September 19th (Wed)

Geometry and Topology (Conference Room VIII + IX)

Award Lecture for 2012 Geometry Prize

Ken'ichi Ohshika (Osaka Univ.)[#] Topological structure of deformation spaces of Kleinian groups
 (10:50~11:50)

Award Lecture for 2012 Geometry Prize

Yukinobu Toda (Univ. of Tokyo)[#] Stability conditions and Donaldson–Thomas type invariants
 on Calabi–Yau 3-folds (13:15~14:15)

Complex Analysis (Conference Room II)

Hiroshi Yamaguchi (Shiga Univ.)[#] Pseudoconvex domains in the Hopf surface (13:15~14:15)

Functional Equations (Conference Room III)

Naoto Kumano-go (Kogakuin Univ.)[#] Phase space path integrals as analysis on path space (13:15~14:15)

Functional Analysis (Conference Room IV)

Kiyoomi Kataoka (Univ. of Tokyo)[#] A system of fifth-order partial differential equations describing a surface which contains several continuous families of circular arcs (13:00~14:00)

Infinite Analysis (Conference Room VII)

Yoshiyuki Kimura (Osaka City Univ.)[#] Quiver varieties and quantum cluster algebras (13:30~14:30)

September 20th (Thu)

Algebra (Conference Room I)

Hyohe Miyachi (Osaka City Univ.)[#] Comparison between module categories over modular quantum general linear groups (17:00~18:00)

Geometry (Conference Room VIII)

Atsushi Kasue (Kanazawa Univ.)^{*} Embedding of graphs and Rayleigh monotonicity law (16:30~17:30)

Functional Equations (Conference Room III)

Katsuyuki Ishii (Kobe Univ.)[#] Mathematical analysis of some algorithms for mean curvature flow (16:30~17:30)

Real Analysis (Conference Room II)

Jürgen Appell (Univ. Würzburg)[#] Condensing operators and applications: old and new (15:50~16:50)

Functional Analysis (Conference Room IV)

Shūichi Ohno (Nippon Inst. of Tech.)^{*} Topological structure of the space of weighted composition operators on H^∞ (16:30~17:30)

Statistics and Probability (Conference Room V)

Shogo Kato (Inst. of Stat. Math.)[#] The Cauchy distribution on the circle and related statistical models (14:30~15:30)

Hidetoshi Murakami[#] Some saddlepoint approximations to the nonparametric tests
(Nat. Defense Acad. of Japan) and biased for two-sided alternatives (15:45~16:45)

Applied Mathematics (Conference Room VI)

Yuji Kodama (Ohio State Univ.)[#] KP solitons and Mach reflection in shallow water (16:50~17:50)

Topology (Conference Room IX)

Koya Shimokawa (Saitama Univ.)[#] Tangle analysis of site-specific recombinations (16:00~17:00)

September 21st (Fri)

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

Kenshi Miyabe (Kyoto Univ.)[#] Natural properties that a randomness notion should have (14:20~15:20)

Algebra (Conference Room I)Yoshinori Gongyo (Univ. of Tokyo)[#] Log pluricanonical representations and abundance (11:00~12:00)Shigeru Kuroda (Tokyo Metro. Univ.)[#] Wild automorphisms of a polynomial ring (15:45~16:45)**Functional Equations** (Conference Room III)Hideyuki Miura (Osaka Univ.) On fundamental solutions for fractional diffusion equations
with divergence free drift (16:45~17:45)**Real Analysis** (Conference Room II)Okiihiro Sawada (Gifu Univ.)[#] The ill-posedness theory of the Navier–Stokes equations in
the critical space (16:10~17:10)**Functional Analysis** (Conference Room IV)Mutsumi Saito (Hokkaido Univ.)[#] Irreducible quotients of A -hypergeometric systems (14:15~15:15)**Applied Mathematics** (Conference Room VI)Daisuke Tagami (Kyushu Univ.)[#] Numerical analysis of flow problems with finite element meth-
ods —From error analysis to parallel computations— (16:45~17:45)

Open Lectures for Citizens

Sponsored by: Mathematical Society of Japan

Co-sponsored by: Faculty of Mathematics and Institute of Mathematics for Industry,
Kyushu University

Date: September 22nd (Sat) 14:00–16:30

Venue: Faculty of Mathematics Bldg., Large Lecture Room No. 3

Program: Opening Speech:

Hideki Kosaki (Kyushu Univ.) (14:00–14:10)

Lecture 1:

Kazushi Ahara (Meiji Univ.)

Survey of interactive geometry software (14:10–15:10)

Lecture 2:

Masaaki Takase (Kyushu Univ.)

Sekiguchi, Hiraki and the mathematics in Kaga Province (Prefecture of
Ishikawa) (15:30–16:30)Web Page: <http://mathsoc.jp/en/meeting/kyushu12sept/>

Workshop

—How can mathematics contribute to big data researches?—

Sponsored by: Unit for Mathematical Innovations, MEXT

Co-sponsored by: Mathematical Society of Japan

Date: September 19th (Wed) 9:30–12:10

Venue: Inamori Center, Inamori Hall

Program: MEXT

On “Strategy for Mathematical Innovations — Interim Report”

..... (9:30– 9:50)

Kiyoshi Asai (AIST)

TBA (10:00–10:45)

Question-and-answer Session (10:45–11:00)

Masayuki Takeda (Kyushu Univ.)

Foundational Technology for Next-Generation Information System

for Utilizing Big Data (11:10–11:55)

Question-and-answer Session (11:55–12:10)

MSJ–KMS Joint Meeting 2012

Sponsored by: Mathematical Society of Japan, and
The Korean Mathematical Society

Partially supported by:

Faculty of Mathematics and Institute of Mathematics for Industry,
Kyushu University

Date: September 17th (Mon) 10:00–17:40

Venue: Centennial Hall, Kyushu University School of Medicine

<http://www.med.kyushu-u.ac.jp/100ko-do/english/>

1-1 Maidashi 3-chome Higashi-ku, Fukuoka 812-8582, JAPAN

Phone +81 (0)92 642 6257 / Fax +81 (0)92 642 6258

(See page 41)

Program

Plenary Talks — Main Hall

10:00–11:00 Gen Nakamura (Hokkaido Univ.)
Inversion schemes for diffusion equations

11:30–12:30 Jun-Muk Hwang (KIAS)
Compactifications of \mathbb{C}^n

Algebra Session — Main Hall

14:00–14:40 Yukinobu Toda (Univ. of Tokyo)
Stability conditions and birational geometry

14:50–15:30 Changheon KIM (Hanyang Univ.)
Arithmetic properties of weakly harmonic Maass forms

16:10–16:50 Shuji Saito (Tokyo Tech)
Higher dimensional Hasse principle and resolution of quotient singularities

17:00–17:40 Yongnam Lee (KAIST)
Q-Gorenstein deformation theory and its applications

Geometry and Topology Session — Hall 1

14:00–14:40 Shin-ichi Ohta (Kyoto Univ.)
Ricci curvature in Finsler geometry and applications

14:50–15:30 Sang-hyun Kim (KAIST)
Embeddability between right-angled Artin groups

16:10–16:50 Shigeyuki Morita (Univ. of Tokyo*)
Characteristic classes in low dimensional topology —Prospects and computations—

17:00–17:40 Jaigyoungh Choe (KIAS)
Higher dimensional versions of the Enneper surface, catenoid and helicoid

Analysis Session — Hall 2

- 14:00–14:40 Kenji Nakanishi (Kyoto Univ.)
Global dynamics of nonlinear dispersive equations
- 14:50–15:30 Ki-Ahm Lee (SNU)
Homogenization of the oscillating data on a lower dimensional surface
- 16:10–16:50 Yoshikazu Giga (Univ. of Tokyo)
Blow-up arguments and the Navier-Stokes equations
- 17:00–17:40 Kang Tae Kim (POSTECH)
On a generalization of Forelli's theorem

Probability Theory and Applied Mathematics Session — Hall 3

- 14:00–14:40 Makiko Sasada (Keio Univ.)
Microscopic dynamics for the porous medium equation and other degenerate parabolic equations
- 14:50–15:30 Jung Hee Cheon (SNU)
Discrete logarithm with auxiliary inputs
- 16:10–16:50 Takashi Kumagai (Kyoto Univ.)
Random walks on disordered media and their scaling limits
- 17:00–17:40 Hyeong In Choi (SNU)
Commodity Futures model and applications

Banquet

Time: 18:30–20:30

Venue: Ozen-ya IORI (tavern)

<http://www.ozenya.com/iori.html> (only in Japanese)

Phone +81 (0) 92 281 1388

(A few minutes' walk from Subway Station "Nakasu-Kawabata" Exit No. 7)

Participants are asked to pay 3,000 JPY at the banquet.

Organizing Committee:

MSJ

Yoichi Miyaoka (Univ. of Tokyo)
Miyuki Koiso (Kyushu Univ.)
Takayoshi Ogawa (Tohoku Univ.)
Takashi Tsuboi (Univ. of Tokyo)

KMS

JongHae Keum (KIAS)
Yongjin Song (Inha Univ.)
Dohan Kim (SNU)
Dongsu Kim (KAIST)

Executive Committee:

[Local Organizing Committee]

Miyuki Koiso (Kyushu Univ.), Shin-ichiro Ei (Kyushu Univ.), Yukio Otsu (Kyushu Univ.), Osamu Saeki (Kyushu Univ.), Tomoyuki Shirai (Kyushu Univ.), Masanori Morishita (Kyushu Univ.)

[Oversea Coordination]

Yoichi Miyaoka (Univ. of Tokyo), Takashi Tsuboi (Univ. of Tokyo), Nobuyuki Tose (Keio Univ.)

[Network Service]

Nobuyuki Tose (Keio Univ.), Takashi Aoki (Kinki Univ.), Kazuhiko Aso (Univ. of Tokyo), Masashi Kubo (Nagoya Univ.), Hisashi Naito (Nagoya Univ.), Tatsuyoshi Hamada (Fukuoka Univ.), Shoichi Fujimori (Okayama Univ.), Yasushi Yamashita (Nara Women's Univ.)

Foundation of Mathematics and History of Mathematics

September 20th (Thu) Conference Room VII

9:00–11:20

- 1 Shigeru Masuda (Kyoto Univ.)[#] Traditional diversion of real to imaginary since Euler, and innovative strictness by Poisson's sense 20
- 2 Shigeru Masuda (Kyoto Univ.)[#] Proofs and applications relating to describability of an arbitrary function by trigonometric series in the 19C 20
- 3 Teruaki Asai (Nara Univ. of Edu.)^{*} On the $2/n$ table of the Rhind Mathematical Papyrus 10
- 4 Shunji Horiguchi [#] The surveyings of Gonemon Higuchi and his pupils 15
(Niigata Sangyo Univ.)
- 5 Shunji Horiguchi [#] The mariner's compass of Seizaemon Kanazawa and that of Yoemon
(Niigata Sangyo Univ.) Shizuno 15
- 6 Hideyuki Majima (Ochanomizu Univ.)[#] On the determinat by SEKI Takakazu in "Sangaku-genkun" 30

11:25–12:25 Mathematics History Team Meeting

14:15–17:05

- 7 Tsukane Ogawa (Yokkaichi Univ.)[#] Geometry studied in the Shisei-Sanka School 25
- 8 Shotaro Tanaka ^{*} Representation of fractional function in power series —De Moivre,
L. Euler, G. H. Hardy, Y. Wada, M. Fujiwara— 20
- 9 Toshimichi Usuba (Nagoya Univ.)[#] Large cardinals and indestructibly Lindeöf spaces 15
- 10 Takahiro Seki (Niigata Univ.)[#] On relations among double negation translations in substructural logics
..... 15
- 11 Takayuki Kihara (JAIST)[#] Strong measure zero sets in computability theory I —Lightface Π_1^0 sets
Kojiro Higuchi (Tohoku Univ.) and the perfect set property— 15
- 12 Takayuki Kihara (JAIST)[#] Strong measure zero sets in computability theory II —Kolmogorov
Kenshi Miyabe (Kyoto Univ.) complexity and triviality— 20
- 13 Toshio Suzuki (Tokyo Metro. Univ.)[#] The eigen distribution of an AND-OR tree under directional algorithms
Ryota Nakamura (Tokyo Metro. Univ.) 15
- 14 Toshio Suzuki (Tokyo Metro. Univ.)[#] Resource-bounded randomness and computable Dowd-type generic sets
Masahiro Kumabe
(Open Univ. of Japan) 15

September 21st (Fri) Conference Room VII

9:00–11:40

- 15 Yoshihiro Abe (Kanagawa Univ.)[#] Restricted structural properties of ideals on $\mathcal{P}_\kappa\lambda$ and weak normality
..... 15
- 16 Tatsuya Shimura (Nihon Univ.)[#] Admissible rules for one variable formulas and disjunction property .. 15
- 17 Katsumi Sasaki (Nanzan Univ.)[#] The exact model constructed from normal forms in normal modal logics
containing **K4** 10

18	Keita Yokoyama (Tokyo Tech) #	Ramsey's theorem without Σ_1 -induction	10
19	Keita Yokoyama (Tokyo Tech) #	Some versions of Friedman's self-embedding theorem	10
20	Keita Yokoyama (Tokyo Tech) #	A generalization of Schnorr's theorem	10
21	Kenji Fukuzaki (Int. Univ. of Kagoshima)	* Definability of the ring of integers in some infinite algebraic extensions of the rationals	15
22	Yoshihito Tanaka (Kyushu Sangyo Univ.) Agi Kurucz (King's Coll. London) Frank Wolter (Univ. of Liverpool) Michael Zakharyashev (Birkbeck Coll. London)	# Conservativity of Boolean algebras with operators over semilattices with operators	15
23	Hiroaki Minami Michael Hrušák (Univ. Nacional Autónoma de México)	# Mathias–Prikrý forcing and dominating reals	15
24	Hiroataka Kikyo (Kobe Univ.) #	On small superstable generic structures	15

11:45–12:15 Research Section Assembly**14:20–15:20 Talk invited by Section on Foundation and History of Mathematics**

Kenshi Miyabe (Kyoto Univ.) # Natural properties that a randomness notion should have

Algebra

September 18th (Tue) Conference Room I

9:00–12:00

1	Yukio Ohkubo (Int. Univ. of Kagoshima)	# Distribution of the first digits of prime numbers	10
2	Yoshifumi Tsuchimoto (Kochi Univ.) * Hajime Kuroiwa (Kochi Univ.) Tatsuya Itagaki (Kochi Univ.) Yuusuke Watou (Kochi Univ.)	On splitting behaviors of polynomials at primes	15
3	Kenichi Shimizu	* Prime values of quadratic polynomials and imaginary quadratic fields	10
4	Soichi Ikeda (Nagoya Univ.) * Kaneaki Matsuoka (Nagoya Univ.)	On transcendental numbers generated by certain integer sequences	10
5	Kazuhito Kozuka (Miyakonojo Nat. Coll. of Tech.)	* Knopp type identities for generalized multiple Dedekind type sums attached to matrices and Dirichlet characters	10
6	Yoshinori Hamahata (Ritsumeikan Univ.)	# Continued fractions and Dedekind sums for function fields	10

- 7 Masanori Katsurada (Keio Univ.)[#] Shintani zeta-functions of several variables and Lauricella hypergeometric functions II 10
- 8 Tomoya Machide (Kinki Univ.)[#] On a parameterized sum formula for triple zeta values 10
- 9 Tomoya Machide (Kinki Univ.)[#] On a relation between multiple zeta values and the gamma function 10
- 10 Yoshio Tanigawa (Nagoya Univ.)^{*} On relations among Dirichlet and multiple L -values mod 4 10
 Jun Furuya
 (Okinawa Nat. Coll. of Tech.)
 Makoto Minamide
 (Kyoto Sangyo Univ.)
- 11 Ick Sun Eum (KAIST)[#] Some applications of modular units 15
 Ja Kyung Koo (KAIST)
 Dong Hwa Shin
 (Hankuk Univ. of Foreign Studies)
- 12 Yuichi Sakai (Kyushu Univ.)^{*} The Ramanujan–Serre differential operators and certain elliptic curves 10
 Masanobu Kaneko (Kyushu Univ.)
- 13 Tomoyoshi Ibukiyama (Osaka Univ.)[#] A lift to vector valued Siegel modular forms of half integral weight and Shimura type conjecture revisited 10
- 14 Toshiyuki Kikuta (Osaka Inst. of Tech.)^{*} On Ramanujan type congruences for modular forms with several variables 10
 Shoyu Nagaoka (Kinki Univ.)
- 15 Shoyu Nagaoka (Kinki Univ.)^{*} On p -adic properties of Siegel modular forms 10
 Siegfried Böcherer
 (Univ. Mannheim/Univ. of Tokyo)
- 14:15–16:15**
- 16 Daisuke Shiomi (Tokyo Univ. of Sci.)^{*} On the Hasse–Witt invariants of the maximal real subfields of cyclotomic function fields 10
- 17 Hizuru Yamagishi (Tokyo Denki Univ.)[#] On hyperelliptic curves of Chebyshev type 15
- 18 Shinnya Okumura (Kyushu Univ.)[#] On the number of \mathbb{F}_p -valued points of elliptic curves 15
- 19 Yuki Kato (Tohoku Gakuin Univ.)^{*} The isomorphism between motivic cohomology and K -groups for equi-characteristic regular local rings 10
- 20 Yoshiyasu Ozeki (Kyoto Univ.)[#] Full faithfulness theorem for torsion crystalline representations 10
- 21 Manabu Yoshida (Kyushu Univ.)[#] A refinement of the local class field theory of Serre and Hazewinkel 10
- 22 Yuto Takahashi (Nagoya Univ.)[#] Infiniteness of class field towers degrees of extensions of which are restricted to products of 2 and 3 10
- 23 Mitsul Tohkailin (Kinki Univ.)[#] A characterization of some number fields of infinite degree using absolute Galois groups 15
 Manabu Ozaki (Waseda Univ.)
- 24 Teruhisa Kadokami[#] Iwasawa invariants of cyclic branched covers of links 10
 (East China Norm. Univ.)
 Yasushi Mizusawa
 (Nagoya Inst. of Tech.)

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

- Yoichi Mieda (Kyoto Univ.)[#] Toward generalization of the non-abelian Lubin–Tate theory

September 19th (Wed) Conference Room I

9:00–12:00

- 25 Akinari Hoshi (Rikkyo Univ.)[#] Noether's problem and unramified Brauer groups 10
 Ming-chang Kang (Nat. Taiwan Univ.)
 Boris E. Kunyavskii (Bar-Ilan Univ.)
- 26 Aiichi Yamasaki (Kyoto Univ.)[#] Table of conjugacy classes of finite groups in $GL(5, \mathbb{Z})$, $GL(6, \mathbb{Z})$ and
 some calculations on elliptic curves 10
- 27 Akinari Hoshi (Rikkyo Univ.) Rationality problem for algebraic tori 10
 Aiichi Yamasaki (Kyoto Univ.)
- 28 Yasushi Gomi (Sophia Univ.)[#] q -analogue of Gauss sums on the symmetric groups 10
- 29 Tomoyuki Arakawa (Kyoto Univ.)[#] Zhu's algebra and C_2 -algebra of parafermion vertex operator algebras
 Ching Hung Lam (Academia Sinica) 15
 Hiromichi Yamada (Hitotsubashi Univ.)
- 30 Kenichi Shimizu (Nagoya Univ.)[#] Real representations of Hopf $*$ -algebras 20
- 31 Masao Kiyota (Tokyo Med. Dent. Univ.)^{*} The heights of irreducible Brauer characters in 2-blocks of the symmetric
 Tetsuro Okuyama groups 15
 (Hokkaido Univ. of Edu.)
 Tomoyuki Wada
 (Tokyo Univ. of Agri. and Tech.)
- 32 Seok-Jin Kang (Seoul Nat. Univ.)[#] Geometric realization of Khovanov–Lauda–Rouquier algebras associ-
 ated with Borcherds–Cartan data 15
 Masaki Kashiwara
 (Kyoto Univ./Seoul Nat. Univ.)
 Euiyong Park (Seoul Nat. Univ.)
- 33 Myungho Kim (KIAS)[#] Khovanov–Lauda–Rouquier algebras and R-matrices 15
 Seok-Jin Kang (Seoul Nat. Univ.)
 Masaki Kashiwara
 (Kyoto Univ./Seoul Nat. Univ.)
- 34 Masahide Konishi (Nagoya Univ.)[#] Level 1 cyclotomic KLR algebras of cyclic quivers 10
- 35 Sei-Qwon Oh (Chungnam Nat. Univ.)[#] Poisson brackets and Poisson spectra in polynomial algebras 15

September 20th (Thu) Conference Room I

10:00–11:30

- 36 Manabu Matsuoka ^{*} Polynomial realization of sequential codes 10
 (Kuwana-Kita High School)
- 37 Yasuyuki Hirano [#] On rings with primitive idempotents 10
 (Naruto Univ. of Edu.)
- 38 Satoshi Yamanaka (Okayama Univ.)[#] On Galois polynomials of degree p in skew polynomial rings of derivation
 Shūichi Ikehata (Okayama Univ.) type 10
- 39 Akira Ueda (Shimane Univ.)^{*} Skew Rees rings which are maximal orders 10
 Monika Rianti Helmi (Andalas Univ.)
 Hidetoshi Marubayashi
 (Tokushima Bunri Univ.)

- 40 Takao Sumiyama (Aichi Inst. of Tech.) On Szele matrices of finite rings 10
- 41 Tsunekazu Nishinaka # On primitivity of group rings of one-relator groups 10
(Okayama Shoka Univ.)
- 42 Kazutoshi Koike # Morita duality and finite ring extensions 10
(Okinawa Nat. Coll. of Tech.)
- 43 Hiroaki Komatsu * A characterization of separable algebras by generalized derivations ... 10
(Okayama Pref. Univ.)

11:30–12:00 Research Section Assembly**14:15–16:45**

- 44 Ryo Akiyama (Shizuoka Univ.) # 3-iterated quadratic Ore extensions 10
- 45 Kenta Ueyama (Shizuoka Univ.) # Fixed subalgebras of AS-regular algebras under finite cyclic group actions 15
- 46 Yasuhiko Takehana # A generalization of stable torsion theory 10
(Hakodate Nat. Coll. of Tech.)
- 47 Hideto Asashiba (Shizuoka Univ.) # Derived equivalence classification of generalized multifold extensions of
Mayumi Kimura (Shizuoka Univ.) piecewise hereditary algebras of tree type 10
- 48 Hideto Asashiba (Shizuoka Univ.) # Induced pseudofunctors and derived equivalences of oplax 2-representations of a category 15
- 49 Hiroki Abe (Oyama Nat. Coll. of Tech.) # Tilting modules arising from two-term tilting complexes 10
- 50 Masahide Konishi (Nagoya Univ.) # Selfinjectivity of algebras arising from tiling quivers and their potentials 10
- 51 So Okada (Kyoto Univ.) # On Euler characteristics for large Kronecker quivers 10
- 52 Takahiko Furuya (Tokyo Univ. of Sci.) * Hochschild cohomology of cluster-tilted algebras of types A and D ... 15
Takao Hayami (Hokkai-Gakuen Univ.)
- 53 Takuma Aihara (Chiba Univ.) Dimensions of triangulated categories with respect to subcategories .. 15
Tokuji Araya (Tokuyama Coll. of Tech.)
Osamu Iyama (Nagoya Univ.)
Ryo Takahashi (Nagoya Univ./MSRI)
Michio Yoshiwaki (Osaka City Univ.)

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

- Hyohe Miyachi (Osaka City Univ.) # Comparison between module categories over modular quantum general linear groups

September 21st (Fri) Conference Room I

9:00–11:00

- 54 Tomohiro Iwami * Certain refinements of a projectivity criterion according to V. V. Shokurov
(Kyushu Sangyo Univ.) and the log minimal model program for slc pairs 10
- 55 Makoto Sakurai # Geometric quantization of Wess–Zumino–Witten model and virtual localization formula 15
- 56 Shigeru Iitaka (Gakushuin Univ.) # sharp estimate of the birational invariant k in terms of $(2,1)$ genera 15

- 57 Takanori Ayano (Osaka Univ.)[#] On series expansion around the origin of sigma functions for telescopic curves 10
- 58 Tohru Gotoh (Nat. Defense Acad. of Japan)^{*} A holomorphic section relating to 2-pointed Weierstrass gap set 10
- 59 Kenta Watanabe (Osaka Univ.)^{*} On the Weierstrass semigroups for pointed curves on K3 surfaces with Picard number one 10
- 60 Ryo Kawaguchi (Kyushu Sangyo Univ.)[#] Weierstrass gap sequences at total ramification points on curves on a toric surface 15
- 61 Katsuhisa Furukawa (Waseda Univ.)[#] Duality with expanding maps and shrinking maps, and its applications to Gauss maps 15

11:00–12:00 Talk invited by Algebra Section

- Yoshinori Gongyo (Univ. of Tokyo)[#] Log pluricanonical representations and abundance

14:15–15:45

- 62 Takayuki Hibi (Osaka Univ.)[#] Toric rings arising from cyclic polytopes 15
Akihiro Higashitani (Osaka Univ.)
Lukas Katthän (Univ. Marburg)
Ryota Okazaki (Osaka Univ.)
- 63 Kazunori Matsuda (Nagoya Univ.)^{*} Characterization of Gorenstein strongly Koszul Hibi rings by invariants of F -singularities 15
Takahiro Chiba (Nagoya Univ.)
- 64 Futoshi Hayasaka (Kagoshima Nat. Coll. of Tech.)^{*} Asymptotic periodicity of primes associated to multigraded modules 10
- 65 Ryota Okazaki (Osaka Univ.)[#] On a minimal free resolution of a Borel fixed ideal and its supporting CW complex 15
Kohji Yanagawa (Kansai Univ.)
- 66 Yosuke Kuratomi (Kitakyushu Nat. Coll. of Tech.)^{*} On Goldie extending modules and extending modules 10
- 67 Yousuke Kuratomi (Kitakyushu Nat. Coll. of Tech.)^{*} On semi-lifting modules 10

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

- Shigeru Kuroda (Tokyo Metro. Univ.)[#] Wild automorphisms of a polynomial ring

Geometry

September 18th (Tue) Conference Room VIII

9:00–12:00

- 1 Sadahiro Maeda (Saga Univ.)^{*} Some characterizations of isoparametric hypersurfaces in a sphere 15
- 2 Sadahiro Maeda (Saga Univ.)^{*} Congruence classes of minimal ruled real hypersurfaces in a nonflat complex space form 15
Toshiaki Adachi (Nagoya Inst. of Tech.)
Tuya Bao (Inner Mongolia Univ. for Nat.)

15 Geometry

- 3 Kazuhiro Okumura [#] η -Einstein real hypersurfaces in a nonflat complex space form 10
(Asahikawa Nat. Coll. of Tech.)
- 4 Kazuyuki Enomoto [#] Total torsion of curves in E^3 15
(Tokyo Univ. of Sci.)
Jin-ichi Itoh (Kumamoto Univ.)
- 5 Naoyuki Koike (Tokyo Univ. of Sci.) * The classifications of certain kind of isoparametric submanifolds in non-compact symmetric spaces 15
- 6 Makiko Tanaka (Tokyo Univ. of Sci.) * The intersection of two real forms in Hermitian symmetric spaces of compact type II 15
Hiroyuki Tasaki (Univ. of Tsukuba)
- 7 Hiroshi Iriyeh (Tokyo Denki Univ.) * On the structure of the intersection of real flag manifolds in a complex flag manifold 10
Takashi Sakai (Tokyo Metro. Univ.)
Hiroyuki Tasaki (Univ. of Tsukuba)
- 8 Akira Kubo (Hiroshima Univ.) [#] Congruency of orbits of the solvable parts of parabolic subgroups 10
Hiroshi Tamaru (Hiroshima Univ.)
- 9 Kastuei Kemnotsu (Tohoku Univ.) * On the global existence of generalized rotational hypersurfaces with prescribed mean curvature in the Euclidean 15
Takeyuki Nagasawa (Saitama Univ.)
- 10 Sung-Hong Min (KIAS) [#] Optimal isoperimetric inequalities for complete proper minimal submanifolds in hyperbolic space 15
Keomkyo Seo
(Sookmyung Women's Univ.)
- 11 Keomkyo Seo [#] Geometric inequalities for submanifolds with bounded mean curvature 15
(Sookmyung Women's Univ.)
- 14:15–16:00**
- 12 Hironori Kumura (Shizuoka Univ.) Exit radii of submanifolds from cylindrical domains in warped product manifolds 15
- 13 Hiraku Nozawa (IHÉS) [#] On Haefliger cohomology of Riemannian foliations 15
José Ignacio Royo Prieto
(Univ. Basque Country)
- 14 Oliver Goertsches (Univ. Hamburg) [#] On vanishing and rigidity of basic cohomology of Sasakian manifolds 15
Hiraku Nozawa (IHÉS)
Dirk Töben (Univ. São Paulo)
- 15 Jesús Antonio Álvarez López [#] Characteristic classes of transversely homogeneous foliations 15
(Univ. Santiago de Compostela)
Hiraku Nozawa (IHÉS)
- 16 Seoung Dal Jung (Jeju Nat. Univ.) [#] Transverse Killing forms on foliated Riemannian manifolds 15
- 17 Hiraku Abe (Tokyo Metro. Univ.) [#] Schubert calculus for weighted Grassmannians 15
Tomoo Matsumura (KAIST)
- 16:15–17:15 Talk invited by Geometry Section**
- Toshihiro Shoda (Saga Univ.) [#] On Morse index of minimal surfaces

September 19th (Wed) Conference Room VIII + IX

10:30–10:45 Presentation Ceremony for 2012 Geometry Prize**10:50–11:50 Award Lecture for 2012 Geometry Prize**Ken'ichi Ohshika (Osaka Univ.)[#] Topological structure of deformation spaces of Kleinian groups**13:15–14:15 Award Lecture for 2012 Geometry Prize**Yukinobu Toda (Univ. of Tokyo)[#] Stability conditions and Donaldson–Thomas type invariants on Calabi–Yau 3-folds

September 20th (Thu) Conference Room VIII

9:00–12:00

- 18 Hiroaki Izumi (Elpida Memory, Inc.)[#] The mathematical full solution of business cycle as a phase transition 15
- 19 Tetsuya Nagano (Univ. of Nagasaki)[#] Linear parallel displacements along a infinitesimal parallelogram and “curvature” 15
- 20 Tomoyo Kanazawa (Tokyo Univ. of Sci.)[#] Wigner function of the MIC-Kepler problem 10
Akira Yoshioka (Tokyo Univ. of Sci.)
- 21 Tsukasa Takeuchi (Tokyo Univ. of Sci.)[#] A recursion operator for the geodesic flow of Schwarzschild metric 10
Kiyonori Hosokawa (Tokyo Univ. of Sci.)
Shinsuke Takatani (Tokyo Univ. of Sci.)
- 22 Yukiko Konishi (Kyoto Univ.)^{*} Mixed Frobenius structure and local A-model 15
Satoshi Minabe (Tokyo Denki Univ.)
- 23 Tomoaki Yatsui (Asahikawa Med. Univ.)[#] On the prolongations of free pseudo-product fundamental graded Lie algebras 10
- 24 Yuichiro Tanaka (Univ. of Tokyo)^{*} Visible actions on flag varieties and a generalization of the Cartan decomposition 15
- 25 Yoshihiko Matsumoto (Univ. of Tokyo)[#] The second variational formula of the total Q -curvature in conformal geometry 15
- 26 Hiroaki Ishida (Osaka City Univ.)[#] Complex manifolds with maximal torus actions 15
- 27 Sanae Kurosu (Tokyo Univ. of Sci.)^{*} A characterization of a pluriharmonic affine immersion of codimension two 10
- 28 Hiroshi Matsuzoe (Nagoya Inst. of Tech.)^{*} Quasi-statistical manifolds and geometry of affine distributions 10
Takashi Kurose (Kwansei Gakuin Univ.)
Masayuki Henmi (Inst. of Stat. Math.)
- 29 Hiroshi Matsuzoe (Nagoya Inst. of Tech.)^{*} Generalized conformal structures on statistical manifolds and geometry of q -exponential families 10
Atsumi Ohara (Univ. of Fukui)
Shun-ichi Amari (RIKEN)

14:15–16:15

- 30 Shin Kikuta (Sophia Univ.) Numerical comparison between Carathéodory measure hyperbolicity and positivity of canonical bundle along subvarieties 20
- 31 Mitsuhiro Imada (Keio Univ.)[#] Normality of complex contact manifolds 15
- 32 Yohsuke Imagi (Kyoto Univ.)* On the boundary of the Moduli space of special Lagrangian submanifolds 15
- 33 Hisashi Kasuya (Univ. of Tokyo)* Vaisman metrics on solvmanifolds and Oeljeklaus–Toma manifolds ... 15
- 34 Mitsuhiro Itoh (Univ. of Tsukuba)[#] Rigidity, volume entropy and Kähler, quaternionic Kähler Hadamard
Hiroyasu Satoh (Tokyo Denki Univ.) manifolds 10
Young Jin Suh (Kyungpook Nat. Univ.)
- 35 Peng Fei Bai (Nagoya Inst. of Tech.)* On volumes of trajectory-balls for Kaehler magnetic fields 10
Toshiaki Adachi (Nagoya Inst. of Tech.)
- 36 Ayato Mitsuishi (Tohoku Univ.)* Locally Lipschitz contractibility of Alexandrov spaces and its applica-
Takao Yamaguchi (Univ. of Tsukuba) tions 20

16:30–17:30 Talk invited by Geometry Section

- Atsushi Kasue (Kanazawa Univ.)* Embedding of graphs and Rayleigh monotonicity law

Complex Analysis

September 18th (Tue) Conference Room II

10:00–12:00

- 1 Hitoshi Shiraishi (Kinki Univ.)[#] Extensions of Nunokawa lemma for argument properties 15
- 2 Toshio Hayami (Kinki Univ.)[#] A sufficient condition for p -valently harmonic functions 15
- 3 Tsubasa Itoh (Hokkaido Univ.)[#] Modulus of continuity of p -Dirichlet solutions in a metric measure space
..... 15
- 4 Rikio Yoneda (Otaru Univ. of Commerce)* Toeplitz and Hankel operators on the Bergman spaces with closed range
..... 15
- 5 Fumi-Yuki Maeda (Hiroshima Univ.)* Approximate identities and Young type inequalities in Musielak–Orlicz
Mizuta Yoshihiro spaces 15
(Hiroshima Inst. of Tech.)
Takao Ohno (Oita Univ.)
Tetsu Shimomura (Hiroshima Univ.)

14:30–16:15

- 6 Yoshihiko Shinomiya (Tokyo Tech)[#] Veech holomorphic families of Riemann surfaces and Diophantine problems 15
- 7 Masahiro Yanagishita (Waseda Univ.)[#] Teichmüller distance and Kobayashi distance on subspaces of the universal Teichmüller space 15
- 8 Hideki Miyachi (Osaka Univ.)[#] A Characterization of biholomorphic automorphisms of Teichmüller space 15
- 9 Yohei Komori (Waseda Univ.)[#] On growth rates of 3-dimensional hyperbolic Coxeter prisms 15
- 10 Katsuhiko Matsuzaki (Waseda Univ.)[#] Conjugation of a circle diffeomorphism group to a Moebius group 15

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

- Toshiyuki Sugawa (Tohoku Univ.)[#] Generalization of the Schwarzian derivative —Towards more invariance and higher orders—

September 19th (Wed) Conference Room II

10:00–12:00

- 11 Yan-Yan Wang (Nagoya Univ.)^{*} Variations of Bergman kernels for some explicitly given families of planar domains 20
- 12 Shin Kikuta (Sophia Univ.) On restricted Carathéodory pseudo-volume forms (corrections) 20
- 13 Sachiko Hamano (Fukushima Univ.)[#] Log-plurisubharmonicity of metric deformations induced by Schiffer and harmonic spans 15
- 14 Peter Duren (Univ. of Michigan)[#] Two-point distortion theorems for harmonic and pluriharmonic mappings 15
Hidetaka Hamada
(Kyushu Sangyo Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)
- 15 Ian Graham (Univ. of Toronto)[#] Extension operators and subordination chains 15
Hidetaka Hamada
(Kyushu Sangyo Univ.)
Gabriela Kohr (Babeş-Bolyai Univ.)
- 16 Satoru Shimizu (Tohoku Univ.) Diffeomorphisms between Siegel domains of the first kind preserving the holomorphic automorphism groups and applications 15
Akio Kodama (Kanazawa Univ.)

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

- Hiroshi Yamaguchi (Shiga Univ.)[#] Pseudoconvex domains in the Hopf surface
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Functional Equations

September 18th (Tue) Conference Room III

9:00–12:00

1	Takashi Oyabu	10 talks including “Evolution equations of parabolic type”	5
2	Hidetoshi Tahara (Sophia Univ.) * Hiroshi Yamazawa (Shibaura Inst. of Tech.)	Summability of formal solutions of some linear partial differential equations	10
3	Masashi Yamaguchi (Univ. of Tokyo) ‡ Sakai Hidetaka (Univ. of Tokyo)	Rigidity index and q -middle convolution of linear q -difference equations	10
4	Yoko Umeta (Hokkaido Univ.) *	Construction of general formal solutions for equations of the second Painlevé hierarchy	10
5	Tomonari Sei (Keio Univ.) ‡ Akimichi Takemura (Univ. of Tokyo) Katsuyoshi Ohara (Kanazawa Univ.) Nobuki Takayama (Kobe Univ.)	Holonomic gradient descent for Fisher distribution on the rotation group $SO(3)$	10
6	Tamio Koyama (Kobe Univ./JST CREST) Hiromasa Nakayama (Kobe Univ./JST CREST) Kenta Nishiyama (Osaka Univ./JST CREST) Nobuki Takayama (Kobe Univ./JST CREST)	The holonomic rank of the Fisher–Bingham system of differential equations	10
7	Mika Tanda (Kinki Univ.) ‡ Takashi Aoki (Kinki Univ.)	Borel sums of Voros coefficients and parametric Stokes phenomena for hypergeometric differential equations	10
8	Kana Ando (Chiba Univ.) *	Numerical computation of Stokes multipliers	10
9	Shinji Sasaki (Kyoto Univ.) ‡	On the Borel summability of WKB-theoretic transformation series concerning fixed singularities	10
10	Masafumi Yoshino (Hiroshima Univ.) ‡	On connection problem of some Hamiltonian system	10
11	Hisashi Morioka (Univ. of Tsukuba) ‡ Hiroshi Isozaki (Univ. of Tsukuba)	A Rellich type theorem for discrete Schrödinger operators	10
12	Hironori Kumura (Shizuoka Univ.) *	Limiting absorption principle on manifolds having ends with various measure growth rate limits	10
13	Haruya Mizutani (Kyoto Univ.) ‡	On Strichartz estimates for Schrödinger equations with unbounded electromagnetic potentials	10
14	Haruya Mizutani (Kyoto Univ.) ‡	Remarks on Strichartz estimates for Schrödinger equations on manifolds with ends	10

14:15–16:15

- 15 Takehiro Nagaoka (Kyoto Univ.)[#] Asymptotic behavior of solutions of linear differential systems 10
Yorimasa Oshime (Doshisha Univ.)
- 16 Hideaki Matsunaga (Osaka Pref. Univ.)[#] Formal adjoint operators and asymptotic formula for solutions of inte-
Satoru Murakami gral equations 10
(Okayama Univ. of Sci.)
Yutaka Nagabuchi
(Okayama Univ. of Sci.)
- 17 Jitsuro Sugie (Shimane Univ.)[#] Criteria for global asymptotic stability of damped superlinear oscillators
Tsunehiko Shimadu (Shimane Univ.) 10
Takashi Yamasaki (Shimane Univ.)
- 18 Kunihiko Taniguchi * Extinction in a two-species nonautonomous Lotka–Volterra competition
(Mojigakuen Senior High School) system 10
Hiroyuki Usami (Gifu Univ.)
- 19 Shinji Adachi (Shizuoka Univ.) * Uniqueness and non-degeneracy of positive solutions for a class of
Masataka Shibata (Tokyo Tech) quasilinear elliptic equations with general nonlinearities 10
Tatsuya Watanabe
(Kyoto Sangyo Univ.)
- 20 Naoki Sioji (Yokohama Nat. Univ.) * Radial symmetry of n -mode positive solutions for semilinear elliptic
Kohtaro Watanabe equations in a disc and its applications to the Hénon equation 10
(Nat. Defense Acad. of Japan)
- 21 Ryuji Kajikiya (Saga Univ.) * Multiple bifurcations of solutions for one-dimensional p -Laplace equa-
tion 10
- 22 Ryuji Kajikiya (Saga Univ.) * Least energy solutions of the Hénon equation in point symmetric or
reflectionally symmetric domains 10
- 23 Ryuji Kajikiya (Saga Univ.) * Asymmetry of solutions for the Hénon equation in general symmetric
domains 10

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

- Satoshi Tanaka (Okayama Univ. of Sci.)[#] Nonuniqueness of positive solutions of superlinear two-point boundary
value problems —Symmetry-breaking of even positive solutions—

September 19th (Wed) Conference Room III

9:00–12:00

- 24 Toru Kan (Tohoku Univ.) * On non-radially symmetric solutions of the Liouville–Gel’fand equation
on a two-dimensional annular domain 10
- 25 Mieko Tanaka (Tokyo Univ. of Sci.) * The antimaximum principle and the existence of a solution for the
generalized p -Laplace equations with indefinite weight 10
- 26 Mieko Tanaka (Tokyo Univ. of Sci.) * Multiple existence results of solutions for quasilinear elliptic equations
Dumitru Motreanu with a nonlinearity depending on a parameter 10
(Univ. de Perpignan)
- 27 Tetsutaro Shibata (Hiroshima Univ.) * Critical exponents of the asymptotic formulas for two-parameter varia-
tional eigencurves 10
- 28 Futoshi Takahashi (Osaka City Univ.)[#] On the number of maximum points of least energy solution to a two-
dimensional Hénon equation with large exponent 10

- 29 Shuichi Jimbo (Hokkaido Univ.)[#] Regular domain variation and electromagnetic frequencies 10
- 30 Yasuhito Miyamoto (Keio Univ.)[#] Global branches of sign-changing solutions to a semilinear Dirichlet problem in a disk 10
- 31 Yasuhito Miyamoto (Keio Univ.)[#] A planar convex domain with many isolated hot spots on the boundary 10
- 32 Goro Akagi (Kobe Univ.)[#] Symmetry and stability of asymptotic profiles for fast diffusion equations
Ryuji Kajikiya (Saga Univ.) 10
- 33 Goro Akagi (Kobe Univ.)[#] Symmetry breaking of least energy solutions of Emden–Fowler equations
Ryuji Kajikiya (Saga Univ.) 10
- 34 Yuki Kaneko (Waseda Univ.)[#] A free boundary problem related to an ecological model in multi-dimensional annulus 10
Yoshio Yamada (Waseda Univ.)
- 35 Kazuhiro Oeda (Waseda Univ.)^{*} Stationary solutions for a prey-predator model with nonlinear diffusion and a protection zone 10
- 36 Yan-Yu Chen (Meiji Univ.)[#] Existence and uniqueness of rigidly rotating spiral waves by a wave front interaction model 10
Jong-Shenq Guo (Tamkang Univ.)
Hirokazu Ninomiya (Meiji Univ.)
- 37 Keisuke Takasao (Hokkaido Univ.)^{*} The existence of the weak solution for mean curvature flow with transport term 10
Yoshihiro Tonegawa (Hokkaido Univ.)
- 38 Masashi Mizuno (Nihon Univ.)^{*} Boundary monotonicity formula for the Allen–Cahn equation with Neumann boundary condition 10
Yoshihiro Tonegawa (Hokkaido Univ.)

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

- Naoto Kumano-go (Kogakuin Univ.)[#] Phase space path integrals as analysis on path space

September 20th (Thu) Conference Room III

9:00–12:00

- 39 Michiaki Onodera (Tohoku Univ.)[#] A variational problem and a related geometric evolution equation 10
- 40 Aya Ishizeki (Saitama Univ.)^{*} The removability of singularity of density and the absolute integrability of variational formulae for Möbius energy 10
Takeyuki Nagasawa (Saitama Univ.)
- 41 Sachiko Ishida (Tokyo Univ. of Sci.)[#] Possibility of the blow-up in quasilinear degenerate Keller–Segel systems
Takashi Ono 10
(Tokyo Jitsugyo High School)
Tomomi Yokota (Tokyo Univ. of Sci.)
- 42 Takashi Suzuki (Osaka Univ.)[#] Exclusion of boundary blowup for 2D chemotaxis system provided with Dirichlet boundary condition for the Poisson part 10
- 43 Masahiko Shimojo (Hokkaido Univ.)[#] Control of blow-up set by spatial inhomogeneous coefficient for a semi-linear parabolic equation 10
Jong-Shenq Guo (Tamkang Univ.)
Yung-Jen Lin Guo
(Nat. Taiwan Normal Univ.)
Chang-Shou Lin (Nat. Taiwan Univ.)
- 44 Kazushige Nakagawa (Tohoku Univ.)^{*} The Phragmén–Lindelöf theorem of fully nonlinear systems for L^p -viscosity solutions with unbounded ingredients 10

- 45 Hiroyoshi Mitake (Fukuoka Univ.) * On the large time behavior of solutions of Hamilton–Jacobi equations associated with nonlinear boundary conditions 10
 Hitoshi Ishii (Waseda Univ.)
 Guy Barles (Univ. de Tours)
- 46 Hiroyoshi Mitake (Fukuoka Univ.) * Remarks on the large time behavior of viscosity solutions of quasi-monotone weakly coupled systems of Hamilton–Jacobi equations 10
 Hung Vinh Tran (UC, Berkeley)
- 47 Atsushi Nakayasu (Univ. of Tokyo) * Eikonal equations in metric spaces 10
 Yoshikazu Giga (Univ. of Tokyo)
 Nao Hamamuki (Univ. of Tokyo)
- 48 Gen Nakamura (Hokkaido Univ.) # Linear sampling method for identifying cavities in a heat conductor 10
 Haibing Wang (Hokkaido Univ.)
- 49 Junichi Harada (Waseda Univ.) * Some blow-up solutions of the heat equation with nonlinear boundary conditions 10
- 50 Yusuke Yamauchi (Waseda Univ.) * Life span of positive solutions for the Cauchy problem for the parabolic equations 10
- 51 Masakazu Yamamoto (Hiroasaki Univ.) * Asymptotic behavior of solutions to the dissipative equation with anomalous diffusion 10
- 52 Michiyuki Watanabe (Niigata Univ.) * Inverse scattering at fixed amplitude for nonlinear Schrödinger equations 10
- 53 Tomoyuki Niizato (Osaka Univ.) * The decay rates of solutions to the non-linear dissipative-dispersive wave equations 10

12:10–12:30 Presentation Ceremony for 2012 Analysis Prize

14:15–16:15

- 54 Yoshihisa Nakamura * Large time behavior of small solutions to multi-component nonlinear Schrödinger equations 10
 (Kumamoto Univ.)
 Naoyasu Kita (Univ. of Miyazaki)
- 55 Kota Uriya (Tohoku Univ.) * Asymptotic behavior of a solution to a nonlinear Schrödinger system 10
 Takayoshi Ogawa (Tohoku Univ.)
- 56 Hironobu Sasaki (Chiba Univ.) * Scattering problems for the one-dimensional nonlinear Dirac equation with power nonlinearity 10
- 57 Toshiyuki Suzuki (Tokyo Univ. of Sci.) # Energy methods for Hartree type equations with inverse-square potentials 10
- 58 Masahiro Ikeda (Osaka Univ.) # Remark on nonrelativistic limit for nonlinear Klein–Gordon system with mass resonance 10
 Yuta Wakasugi (Osaka Univ.)
- 59 Nakao Hayashi (Osaka Univ.) * Asymptotic behavior of solutions to nonlinear Klein–Gordon equations in 1d 10
- 60 Norihisa Ikoma (Tohoku Univ.) * On compactness of minimizing sequences for some nonlinear Schrödinger system 10
- 61 Yohei Yamazaki (Kyoto Univ.) # Transverse instability for a system of nonlinear Schrödinger equations 10
- 62 Satoshi Masaki (Gakushuin Univ.) # On minimal non-scattering solution for L^2 subcritical nonlinear Schrödinger equation. 10
- 63 Shingo Ito (Tokyo Univ. of Sci.) * Estimates on modulation spaces for Schroedinger evolution operators with a potential 10
 Keiichi Kato (Tokyo Univ. of Sci.)
 Masaharu Kobayashi (Yamagata Univ.)

16:30–17:30 Talk invited by Functional Equations SectionKatsuyuki Ishii (Kobe Univ.)[#] Mathematical analysis of some algorithms for mean curvature flow

September 21st (Fri) Conference Room III

9:00–12:00

- 64 Ryosuke Hyakuna (Waseda Univ.)^{*} On global solutions to the nonlinear Schrödinger equation with L^p -initial data 10
- 65 Tsukasa Iwabuchi (Chuo Univ.)^{*} Ill-posedness for the nonlinear Schrödinger equations in one and two
Takayoshi Ogawa (Tohoku Univ.) space dimensions 10
- 66 Mamoru Okamoto (Kyoto Univ.)[#] Well-posedness of the Cauchy problem for the Chern–Simons–Dirac system 10
- 67 Shuji Machihara (Saitama Univ.)[#] Time global solutions in L^p for Chern–Simons–Dirac equation in $1 + 1$
Takayoshi Ogawa (Tohoku Univ.) dimension 10
- 68 Takamori Kato (Kyoto Univ.)[#] Unconditional well-posedness of the fifth order modified KdV equation
Kotaro Tsugawa (Nagoya Univ.) with periodic boundary condition 10
- 69 Eiji Onodera (Kochi Univ.)^{*} A fourth-order dispersive flow into Kähler manifolds 10
Hiroyuki Chihara (Kagoshima Univ.)
- 70 Eiji Onodera (Kochi Univ.)^{*} A fourth-order dispersive flow for closed curves on compact Riemann surfaces 10
- 71 Jun-ichi Segata (Tohoku Univ.)^{*} Well-posedness for the fourth order nonlinear Schrödinger type equation on torus 10
- 72 Yusuke Sugiyama (Tokyo Univ. of Sci.)[#] Global solvability for some quasilinear wave equation in one space dimension 10
- 73 Hideo Kubo (Tohoku Univ.)[#] Existence and blow-up of solutions to nonlinear wave equations in one
Ayako Osaka (Tohoku Univ.) space dimension 10
Muhammet Yazici (Tohoku Univ.)
- 74 Hiroyuki Takamura^{*} The lifespan of solutions of a nonlinear wave equations with a quadratic
(Future Univ.-Hakodate) term of non-single and indefinite sign in four space dimensions 10
Kyouhei Wakasa
(Future Univ.-Hakodate)
- 75 Erika Ushikoshi (Tohoku Univ.)^{*} Hadamard variational formula for the Green function for the velocity and pressure of the Stokes equations with the Dirichlet boundary condition 10
- 76 Ken Abe (Univ. of Tokyo)^{*} The L^∞ -Stokes semigroup in exterior domains 10
Yoshikazu Giga (Univ. of Tokyo)
- 77 Hirokazu Saito (Waseda Univ.)[#] On the L_p - L_q maximal regularity of the Neumann–Dirichlet problem for the Stokes equations in an infinite layer 10
- 78 Miho Murata (Waseda Univ.)[#] On the sectorial \mathcal{R} -boundedness of the Stokes operator for the compressible viscous fluid flow 10
Yoshihiro Shibata (Waseda Univ.)

14:15–16:30

- 79 Tomoyuki Nakatsuka (Nagoya Univ.) * Uniqueness of steady Navier–Stokes flows in exterior domains 10
- 80 Hajime Koba (Univ. of Tokyo) * Nonlinear stability of Ekman boundary layers in rotating stratified fluids
. 10
- 81 Tsukasa Iwabuchi (Chuo Univ.) * Time periodic solutions to the Navier–Stokes equations in the rotational
Ryo Takada (Kyoto Univ.) framework 10
- 82 Tsukasa Iwabuchi (Chuo Univ.) * Global solutions for the Navier–Stokes equations in the rotational frame-
Ryo Takada (Kyoto Univ.) work 10
- 83 Tsuyoshi Yoneda (Hokkaido Univ.) A mathematical clue to the separation phenomena on the two-dimen-
sional Navier–Stokes equation 10
- 84 Kei Matsuura (Waseda Univ.) * Initial-boundary value problem for micropolar fluid equations with spin-
Mitsuharu Ôtani (Waseda Univ.) vorticity interaction boundary condition 10
- 85 Noboru Chikami (Tohoku Univ.) * The local existence and blow-up criterion of the compressible Navier–
Stokes system with a Yukawa-potential 10
- 86 Jan Brezina (Kyushu Univ.) ‡ Asymptotic behavior of solutions to the compressible Navier–Stokes
Yoshiyuki Kagei (Kyushu Univ.) equation around a time-periodic parallel flow 10
- 87 Masashi Ohnawa * On the convergence rates towards traveling waves for a model system
(Waseda Univ./Tokyo Tech) of radiating gas 10
Shinya Nishibata (Tokyo Tech)
- 88 Masashi Ohnawa * Asymptotic stability of a stationary solution to the Euler–Poisson equa-
(Waseda Univ./Tokyo Tech) tions including fluid-boundary interaction 10
Shinya Nishibata (Tokyo Tech)
- 89 Masahiro Suzuki (Tokyo Tech) * Asymptotic behavior of solutions to a shallow water equation 10
Masahiro Takayama (Keio Univ.)
Bongsuk Kwon
(Ulsan Nat. Inst. of Sci. and Tech.)
- 90 Tetu Makino (Yamaguchi Univ.) * Application of Nash–Moser theory to gasdynamics 10

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

- Hideyuki Miura (Osaka Univ.) On fundamental solutions for fractional diffusion equations with diver-
gence free drift

Real Analysis

September 20th (Thu) Conference Room II

10:00–11:45

- 1 Yuichi Kanjin (Kanazawa Univ.) ‡ Hardy-type inequalities for the generalized Mehler transform 15
Kunio Sato (Yamagata Univ.)
- 2 Yutaka Terasawa (Univ. of Tokyo) ‡ Positive operators and maximal operators in a filtered measure space
Hitoshi Tanaka (Univ. of Tokyo) 15

- 3 Yoshihiro Mizuta (Hiroshima Inst. of Tech.)[#] Gagliardo–Nirenberg inequality for generalized Riesz potentials of functions in Musielak–Orlicz spaces 15
 Eiichi Nakai (Ibaraki Univ.)
 Yoshihiro Sawano (Tokyo Metro. Univ.)
 Tetsu Shimomura (Hiroshima Univ.)
- 4 Yohei Tsutsui (Waseda Univ.) Weighted inequalities for convolution operators with smooth functions on Hardy spaces and an application to decay property of solutions to Navier–Stokes equations 15
- 5 Takanori Yamamoto (Hokkai-Gakuen Univ.)^{*} An argument of a function in $H^{1/2}$ 15
 Takahiko Nakazi (Hokusei Gakuen Univ.)
- 6 Shinya Moritoh (Nara Women’s Univ.)^{*} Mulholland’s inequality revisited 10

14:15–15:40

- 7 Aoi Honda (Kyushu Inst. of Tech.)[#] On the linearity and metrics of a new sequence space $\Lambda_2(f)$ 15
 Yoshiaki Okazaki (Kyushu Inst. of Tech.)
 Hiroshi Sato (Kyushu Univ.)
- 8 Mikio Kato (Shinshu Univ.)^{*} Weak nearly uniform smoothness of direct sums of Banach spaces 15
 Takayuki Tamura (Chiba Univ.)
- 9 Mikio Kato (Shinshu Univ.)^{*} On relations between $C_{NJ}(X)$ and $J(X)$ and a new geometric constant $A(X)$ 15
 Yasuji Takahashi (Okayama Pref. Univ.)
- 10 Koji Aoyama (Chiba Univ.)[#] Strong convergence of an iterative sequence for maximal monotone operators in a Hilbert space 15
- 11 Sachiko Atsushiba (Univ. of Yamanashi)[#] Nonlinear mean convergence theorems for nonlinear mappings 15

15:50–16:50 Talk invited by Real Analysis Section

- Jürgen Appell (Univ. Würzburg)[#] Condensing operators and applications: old and new

September 21st (Fri) Conference Room II

9:40–12:00

- 12 Toshikazu Watanabe (Niigata Univ.)[#] On non-additive measures which take values in an ordered topological vector space 15
- 13 Yasunori Kimura (Toho Univ.)[#] Convergence of subsets of a complete geodesic space with curvature bounded above and its applications 15
 Kenzi Satō (Tamagawa Univ.)
- 14 Yoichi Miyazaki (Nihon Univ.)^{*} A Method to evaluate resolvent kernels of elliptic operators 12
- 15 Noriaki Yamazaki (Kanagawa Univ.)[#] Optimal control of positive solutions to second order impulsive differential equations 15
 Lingling Zhang (Taiyuan Univ. of Tech.)
 Chengbo Zhai (Shanxi Univ.)
- 16 Makoto Nakamura (Tohoku Univ.)^{*} Remarks on global solutions for nonlinear wave equations under the standard null conditions 10

- 17 Makoto Nakamura (Tohoku Univ.)*
Hidemitsu Wadade (Gifu Univ.) The Cauchy problem for dissipative wave equations with weighted non-linear terms 10
- 18 Yukino Tomizawa (Chuo Univ.)#
Yoshikazu Kobayashi (Chuo Univ.)
Naoki Tanaka (Shizuoka Univ.) Unique solutions to nonautonomous differential equations in Banach spaces 20
- 19 Motohiro Sobajima (Tokyo Univ. of Sci.)# Generalized Hardy–Rellich inequalities in \mathbb{R}^N for operators with singular first order terms 15
- 20 Risei Kano (Kochi Univ.)#
Akio Ito (Kinki Univ.) Asymptotic behavior of solutions for the tumor invasion models 15

14:15–16:00

- 21 Hiroshi Watanabe (Salasian Polytecnic)# Entropy solutions to initial value problems for strongly degenerate parabolic equations with discontinuous coefficients 15
- 22 Naoki Sato (Nagaoka Nat. Coll. of Tech.)#
Toyohiko Aiki (Japan Women’s Univ.)
Yusuke Murase (Meijo Univ.) On a one dimensional free boundary problem for adsorption phenomena 20
- 23 Yusuke Murase (Meijo Univ.)#
Akio Ito (Kinki Univ.) Existence results for a mathematical modeling for brewing process of Japanese Sake 15
- 24 Shun Uchida (Waseda Univ.)*
Mitsuharu Ôtani (Waseda Univ.) The solvability of double-diffusive convection system with Soret’s coefficient depending on the concentration of solute 15
- 25 Goro Akagi (Kobe Univ.)# Doubly nonlinear parabolic equations involving variable exponents ... 15
- 26 Kota Kumazaki (Tomakomai Nat. Coll. of Tech.)# On a mathematical model of moisture transport with a time-dependent porosity in concrete carbonation process 15

16:10–17:10 Talk invited by Real Analysis Section

- Okiihiro Sawada (Gifu Univ.)# The ill-posedness theory of the Navier–Stokes equations in the critical space

Functional Analysis

September 19th (Wed) Conference Room IV

9:45–11:50

- 1 Kazunori Ando (Univ. of Tsukuba)# Inverse scattering theory for discrete Schrödinger operators on the hexagonal lattice 15
- 2 Hisashi Morioka (Univ. of Tsukuba)#
Hiroshi Isozaki (Univ. of Tsukuba) Inverse scattering at a fixed energy for discrete Schrödinger operators on the square lattice 15
- 3 Yuji Nomura (Ehime Univ.)#
Takuya Mine (Kyoto Inst. Tech.) Landau levels of Schrödinger operators with periodic Aharonov–Bohm magnetic fields on the hyperbolic plane 15
- 4 Toshihisa Kubo (Univ. of Tokyo)# Conformally invariant systems of second-order differential operators .. 20

- 5 Yoshinori Kametaka (Osaka Univ.)[#] The best constant of discrete Sobolev inequality on a small Fullerene and Carbon nano tube 15
- 6 Jun Hong Ha (Korea Tech.)[#] Unique identification for linearized sine-Gordon equation 15
Semion Gutman (Univ. of Oklahoma)
- 7 Shin-ichi Nakagiri (Kobe Univ.)[#] Identifiability of advection-diffusion equations 15

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

- Kiyoomi Kataoka (Univ. of Tokyo)[#] A system of fifth-order partial differential equations describing a surface which contains several continuous families of circular arcs

September 20th (Thu) Conference Room IV

9:30–11:50

- 8 Kengo Matsumoto (Joetsu Univ. of Edu.)^{*} Full groups of one-sided topological Markov shifts and classification of Cuntz–Krieger algebras 15
- 9 Takahiro Sudo (Univ. of Ryukyus)[#] Corona rank for Banach or C^* -algebras 15
- 10 Rui Okayasu (Osaka Kyoiku Univ.)[#] Free group C^* -algebras associated with ℓ_p 15
- 11 Yusuke Isono (Univ. of Tokyo)[#] Weak exactness for C^* -algebras and application to condition (AO) ... 15
- 12 Norio Nawata (Chiba Univ.)[#] Fundamental group of uniquely ergodic Cantor minimal systems 15
- 13 Tsuyoshi Kajiwara (Okayama Univ.)[#] Ideals of the core of C^* -algebras associated with self-similar maps 15
Yasuo Watatani (Kyushu Univ.)
- 14 Hiroki Sako (Kyoto Univ.)^{*} Property A and the operator norm localization property for discrete metric spaces 15
- 15 Takahiro Hasebe (Kyoto Univ.)[#] Cumulants for spreadability system 15
Franz Lehner (Graz Univ. of Tech.)

14:15–16:30

- 16 Masaru Nagisa (Chiba Univ.)^{*} Characterization of the diagonality for operators 10
Takashi Itoh (Gunma Univ.)
- 17 Masaru Nagisa (Chiba Univ.)[#] Some operator monotone functions 10
Masato Kawasaki (Chiba Univ.)
- 18 Takeaki Yamazaki (Toyo Univ.)[#] On some matrix inequalities for the matrix power and Karcher means
Yongdo Lim (Kyungpook Nat. Univ.) 10
- 19 Yuki Seo (Osaka Kyoiku Univ.)[#] The Jensen inequality in an external formula 10
- 20 Mitsuru Uchiyama (Shimane Univ.)[#] The principal inverse of the gamma function 15
- 21 Keiichi Watanabe (Niigata Univ.)^{*} An inequality between products of $x^p - 1$ 15
- 22 Kei Ji Izuchi (Niigata Univ.)^{*} Sums of weighted composition operators on H^∞ 10
Shūichi Ohno (Nippon Inst. of Tech.)
- 23 Takuya Hosokawa (Ibaraki Univ.)^{*} Differences of weighted composition operators from the Bloch space to H^∞ 15
Shūichi Ohno (Nippon Inst. of Tech.)

16:30–17:30 Talk invited by Functional Analysis Section

Shûichi Ohno (Nippon Inst. of Tech.)* Topological structure of the space of weighted composition operators on H^∞

September 21st (Fri) Conference Room IV

9:30–11:50

- 24 Masatoshi Enooto (Koshien Univ.)* Brick Hilbert representaions of the Kronecker quiver by perturbation of Yasuo Watatani (Kyushu Univ.) a finite rank operator 15
- 25 Reiji Tomatsu (Hokkaido Univ.)# On a classification of Rohlin flows on von Neumann algebras 15
- 26 Satoshi Goto (Sophia Univ.)# On a mixed quantum double construction of subfactors 10
- 27 Satoshi Goto (Sophia Univ.)# On a generalization of quantum multiple construction of subfactors ... 10
- 28 Yoshikata Kida (Kyoto Univ.)* Orbit equivalence invariants for actions of Baumslag–Solitar groups .. 15
- 29 Yoshikata Kida (Kyoto Univ.)* Stability in orbit equivalence for Baumslag–Solitar groups and Vaes groups 15
- 30 Masafumi Sakao (Chiba Univ.)# The extension problem of discrete Abelian groups by hypergroups of order two 15
Tatsuya Tsurii (Osaka Pref. Univ.)
Satoe Yamanaka (Osaka Pref. Univ.)
Satoshi Kawakami (Nara Univ. of Edu.)
- 31 Akihito Wachi (Hokkaido Univ. of Edu.)* Capelli identities of odd type 15
- 32 Hiroshi Yamashita (Hokkaido Univ.)# Quantization of singular quaternionic nilpotent K -orbits 15
Fuhai Zhu (Nankai Univ.)

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

Mutsumi Saito (Hokkaido Univ.)# Irreducible quotients of A -hypergeometric systems

Statistics and Probability

September 18th (Tue) Conference Room V

9:15–12:00

- 1 Tomoko Takemura (Nara Women's Univ.)* Lévy measure density corresponding to inverse local time 15
Matsuyo Tomisaki (Nara Women's Univ.)
- 2 Yuji Hamana (Kumamoto Univ.)* On the distributions of the first hitting times of Bessel processes 15
Hiroyuki Matsumoto (Aoyama Gakuin Univ.)

- 3 Yuji Hamana (Kumamoto Univ.)* On the expected volume of the Wiener sausage in even dimensions
Hiroyuki Matsumoto 15
(Aoyama Gakuin Univ.)
- 4 Katsusi Fukuyama (Kobe Univ.)* Metric discrepancy results for Erdős–Fortet sequence 5
Sho Miyamoto
- 5 Satoshi Ishiwata (Yamagata Univ.)* An effect of fragile non-symmetry to the transition probability of ran-
Hiroshi Kawabi (Okayama Univ.) dom walks on the triangular lattice 15
Tsubasa Teruya (Okinawa Kaiho Bank)
- 6 Naoki Kubota (Nihon Univ.)# Large deviations for simple random walk on supercritical percolation
clusters 15
- 7 Daisuke Shiraishi (Kyoto Univ.)# Cut points for simple random walks 15
- 8 Sergio Albeverio (Univ. Bonn)# Probabilistic conclusion of constructive Euclidean $(\Phi_4)^4$ quantum field
Minoru W Yoshida (Tokyo City Univ.) theory I 15
- 9 Itaru Mitoma (Saga Univ.)# Asymptotic expansion for oscillatory integrals of Wiener functionals
..... 25
- 14:15–14:45**
- 10 Naoyuki Ichihara (Hiroshima Univ.)* Criticality of Hamilton–Jacobi–Bellman equations and stochastic er-
godic control 15
- 11 Masaaki Tsuchiya (Kanazawa Univ.)* Probabilistic representation of weak solutions to a parabolic equation
with a mixed boundary condition 15
- 15:00–16:00 Talk invited by Statistics and Probability Section**
Toshihiro Uemura (Kansai Univ.)# On jump-type Markov processes and the associated Dirichlet forms
- 16:15–17:15 Talk invited by Statistics and Probability Section**
Kazumasa Kuwada (Ochanomizu Univ.)# Coupling methods for heat distributions and curvature-dimension con-
ditions

September 19th (Wed) Conference Room V

9:15–12:00

- 12 Takahiro Hasebe (Kyoto Univ.)# Examples of infinitely divisible distributions in free probability 15
Noriyoshi Sakuma
(Aichi Univ. of Edu.)
Octavio Arizmendi
(Univ. des Saarlandes)
- 13 Sho Matsumoto (Nagoya Univ.)# Correlation functions for real zeros of a Gaussian power series and
Tomoyuki Shirai (Kyushu Univ.) Pfaffians 15
- 14 Akihiko Inoue (Hiroshima Univ.)# Multivariate completely nondeterministic stationary processes 15
Yukio Kasahara (Hokkaido Univ.)
Mohsen Pourahmadi
(Texas A&M Univ.)
- 15 Hiroki Hashiguchi (Saitama Univ.)# Holonomic gradient method for the distribution function of the largest
Yasuhide Numata root of a Wishart matrix 15
(Univ. of Tokyo/JST CREST)
Nobuki Takayama (Kobe Univ.)
Akimichi Takemura (Univ. of Tokyo)

16	Tamio Koyama (Kobe Univ.) [#] Akimichi Takemura (Univ. of Tokyo)	Calculation of the orthant probability by the holonomic gradient method	15
17	Hajime Yamato (Kagoshima Univ.) [#]	Asymptotic distribution of number of distinct observations among a sample from mixture of Dirichlet processes	10
18	Yoichi Nishiyama (Inst. of Stat. Math.) [#]	Moment convergence of Z -estimators	15
19	Yoichi Nishiyama (Inst. of Stat. Math.) [#]	Z -process method for change point problems	15
20	Akio Tanikawa (Osaka Inst. of Tech.) [#] Hiro Mukai (Washington Univ.) Min Xu (Washington Univ.)	On the rate of convergence of the sequential quadratic method for differential games	10
21	Satoshi Suzuki (Shimane Univ.) [#] Daishi Kuroiwa (Shimane Univ.)	On surrogate duality for quasiconvex programming	20

12:05–12:35 Research Section Assembly

September 20th (Thu) Conference Room V

9:15–12:00

22	Yoshifumi Hyodo (Okayama Univ. of Sci./Int. Inst. for Nat. Sci.) Hiromu Yumiba (Int. Inst. for Nat. Sci.) Masahide Kuwada (Int. Inst. for Nat. Sci.)	[#] Existence conditions for balanced fractional 2^m factorial designs of resolution $2\ell + 1$ derived from simple arrays	15
23	Sanpei Kageyama (Hiroshima Inst. of Tech.) Kazuki Matsubara (Hiroshima Univ.)	[#] The existence of 2 pairwise additive BIB designs	15
24	Ryota Shinjo (Tokyo Univ. of Sci.) [#] Kouji Yamamoto (Osaka Univ.) Sadao Tomizawa (Tokyo Univ. of Sci.)	Improved measure on extended marginal homogeneity for square con- tingency tables with ordered categories	10
25	Kouji Yamamoto (Osaka Univ.) [#] Kouji Tahata (Tokyo Univ. of Sci.) Sadao Tomizawa (Tokyo Univ. of Sci.)	Generalized asymmetry model for cumulative probabilities and its de- composition for square tables	10
26	Kouji Tahata (Tokyo Univ. of Sci.) [#] Kouji Yamamoto (Osaka Univ.) Sadao Tomizawa (Tokyo Univ. of Sci.)	Decomposition of symmetry using palindromic symmetry model for square contingency tables	10
27	Nobuhiro Taneichi (Kagoshima Univ.) [#] Yuri Sekiya (Hokkaido Univ. of Edu.)	On asymptotic expansions of the null distributions of ϕ -divergence statistics for testing a logistic regression model	15
28	Kazuyoshi Yata (Univ. of Tsukuba) [#] Makoto Aoshima (Univ. of Tsukuba)	PCA consistency for high-dimensional data under generalized models	15
29	Kenta Hamada (Waseda Univ.) [#] Masanobu Taniguchi (Waseda Univ.)	Shrinkage estimation and prediction for time series	15
30	Yoshihide Kakizawa (Hokkaido Univ.) [#]	Generalized Cordeiro–Ferrari Bartlett-type adjustment	10
31	Yoshihide Kakizawa (Hokkaido Univ.) [#]	Third-order local powers of several Bartlett-type adjusted tests	15
32	Hiroki Masuda (Kyushu Univ.) [#]	On self-normalized residuals of SDE	10

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

Shogo Kato (Inst. of Stat. Math.)[#] The Cauchy distribution on the circle and related statistical models

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

Hidetoshi Murakami[#] Some saddlepoint approximations to the nonparametric tests and biased
(Nat. Defense Acad. of Japan) for two-sided alternatives

Applied Mathematics

September 18th (Tue) Conference Room VI

9:30–12:00

- 1 Takamichi Sushida (Ryukoku Univ.)[#] Triangular spiral tilings 20
Akio Hizume (Ryukoku Univ.)
Yoshikazu Yamagishi (Ryukoku Univ.)
- 2 Midori Kobayashi (Univ. of Shizuoka)[#] Dudeney's round table problem and neighbour-balanced Hamilton de-
Nobuaki Mutoh (Univ. of Shizuoka) compositions 10
Gisaku Nakamura (Univ. of Shizuoka)
- 3 Tomoki Nakamigawa[#] A Ramsey type problem for multiple disjoint copies of induced sub-
(Shonan Inst. of Technology) graphs 10
- 4 Shuya Chiba (Tokyo Univ. of Sci.)[#] Tutte cycles and Hamiltonicity of 4-connected claw-free graphs 20
Roman Čada (Univ. of West Bohemian)
Kenta Ozeki (Nat. Inst. of Information)
Petr Vrána (Univ. of West Bohemian)
Kiyoshi Yoshimoto (Nihon Univ.)
- 5 Norio Konno (Yokohama Nat. Univ.)[#] The graph isomorphism problem and quantum walk 15
Iwao Sato (Oyama Nat. Coll. of Tech.)
- 6 Iwao Sato (Oyama Nat. Coll. of Tech.)[#] Weighted zeta functions for quotients of regular coverings of graphs
Seiya Negami (Yokohama Nat. Univ.) 15
- 7 Hye Jin Jang (POSTECH)[#] On fat Hoffman graphs with smallest eigenvalue at least -3 10
Jack Koolen (POSTECH)
Akihiro Munemasa (Tohoku Univ.)
Tetsuji Taniguchi
(Matsue Coll. of Tech.)
- 8 Chie Nara (Tokai Univ.)[#] Refold rigidity of convex polyhedra 15
Jin-ichi Itoh (Kumamoto Univ.)
Erik D. Demaine (MIT)
Martin L. Demaine (MIT)
Anna Lubiw (Univ. Waterloo)
Joseph O'Rourke (Smith Coll.)
- 9 Kazuhiko Ushio (Kinki Univ.)[#] Balanced (C_7, C_{12}) -foil designs and related designs 15

14:15–16:40

- 10 Yutaka Sueyoshi (Nagasaki Univ.)[#] On a construction of equitable round-robin tournaments with home-
Ryuichi Harasawa (Nagasaki Univ.) away assignments 20
Aichi Kudo (Nagasaki Univ.)
- 11 Yasuo Katsumata (Asia Univ.)^{*} Analysis of a fuzzy Shapley value and its application 10
Sakae Tsuda (Kokugaiin High School)
Kenichi Nagashima (Waseda Univ.)
Hajime Yamashita (Waseda Univ.)
- 12 Hiromasa Nakayama[#] Holonomic gradient descent method for the Fisher–Bingham distribu-
(Kobe Univ./JST CREST) tion on the n -dimensional sphere 15
Tamio Koyama (Kobe Univ.)
Kenta Nishiyama
(Osaka Univ./JST CREST)
Nobuki Takayama (Kobe Univ.)
- 13 Myoungnyoung Kim (NIMS)[#] Improving reconstruction image using weighted voxel specific signal-to-
Tae Young Ha (NIMS) noise ratios in MREIT 15
Eung Je Woo (Kyung-Hee Univ.)
Oh In Kwon (Konkuk Univ.)
- 14 Hidehiro Shinohara (Tohoku Univ.)[#] Square Lehman matrices which are not cores of minimally non-ideal
clutters 15
- 15 Akira Saito (Nihon Univ.)[#] Star-factors with large components 15
Mikio Kano (Ibaraki Univ.)
- 16 Kenta Noguchi (Keio Univ.)[#] Relations between current graphs, voltage graphs and cycle parities
..... 15
- 17 Kenta Ozeki (Nat. Inst. of Information)[#] Hamiltonicity of k -prism, a k -tree, a k -walk and a k -cycle cover of
graphs 15

16:50–17:50 Talk invited by Applied Mathematics Section

- Yusuke Suzuki (Niigata Univ.)[#] 1-embedded graphs as seen from a viewpoint of re-embedding structures

September 19th (Wed) Conference Room VI

9:30–12:15

- 18 Shunji Horiguchi[#] Convergence comparison in the conditional expressions II of Tsuchikura–
(Niigata Sangyo Univ.) Horiguchi’s method (Yoshimasu Murase–Newton type’s first enhancing
recurrence formula) 15
- 19 Shunji Horiguchi[#] Nnumerical computations concerning elementary functions of a general
(Niigata Sangyo Univ.) convergence comparison in the conditional expression II of Tsuchikura–
Horiguchi’s method 15
- 20 Yuji Katsuta (Ube Nat. Coll. of Tech.)[#] An analysis of a eight-order nonlinear symmetrical differential equation
George Miyake with dihedral group D_4 and odd function 20
(Ube Nat. Coll. of Tech.)
- 21 Hirotake Yaguchi (Mie Univ.)^{*} Construction and security of hash functions based on β -transformations
on $[1,2)$ 15

22	Shy-Der Lin (Chung Yuan Christian Univ.)	*	Particular solutions of associated Cauchy–Euler fractional partial differential equation	15
	Chia-Hung Lu (Chung Yuan Christian Univ.)			
23	Noppharat Chaifong (Chuo Univ.)	#	A dynamical model of human immune response to two type influenza virus infections	15
24	Eunok Jung (Konkuk Univ.) Wanho Lee (Konkuk Univ.) Yongsam Kim (Chung-Ang Univ.)	#	Mathematical models of circulatory systems	15
25	Jeongwhan Choi (Korea Univ.) Shu-Ming Sun (Virginia PolyTech) Sungim Whang (Ajou Univ.)	#	Supercritical surface waves generated by a negative or oscillatory forcing	15
26	Prashant Kumar (POSTECH) Kim Kwang Ik (POSTECH)	#	Mathematical modelling of the ship hydrodynamics in Pohang New Harbor	15

September 20th (Thu) Conference Room VI

9:30–12:00

27	Kiyohisa Tokunaga (Fukuoka Inst. of Tech.)	#	The curl theorem of a triangular integral	15
28	Yoshihiro Saito (Gifu Shotoku Gakuen Univ.)	#	Numerical asymptotic stability of the θ -Maruyama simplified scheme	15
29	Shingo Saito (Kyushu Univ.)	*	Relation between the premium principle based on Wang's transform and the Hermite polynomials	10
30	Koya Sakakibara (Meiji Univ.)	#	A new method approximating holomorphic functions by linear combinations of $1/(z - \zeta)$ I —Analysis in an elliptic domain—	15
31	Koya Sakakibara (Meiji Univ.)	#	A new method approximating holomorphic functions by linear combinations of $1/(z - \zeta)$ II —Analysis in an annular domain—	15
32	Shingo Iwami (Kyushu Univ.)	#	Modeling acute phase of viral infection	20
33	Michiel Bertsch (Univ. Rome Tor Vergata) Danielle Hilhorst (Univ. de Paris-Sud) Hirofumi Izuhara (Meiji Univ.) Masayasu Mimura (Meiji Univ.) Tohru Wakasa (Kyushu Inst. of Tech.)	#	Traveling wave solutions arising in a tumour growth model with contact inhibition	15
34	Tatsuki Mori (Ryukoku Univ.) Shoji Yotsutani (Ryukoku Univ.)	#	Numerical study on stationary solutions and the stability of a 2d SKT cross-diffusion equation	15

14:15–16:40 Special Session —Medicine and Mathematics—

	Yasushi Okada (RIKEN)	#	Understanding the functions of biological molecular motors through modeling	45
	Motohisa Osaka (Nippon Veterinary and Life Sci. Univ.)	#	Applied mathematics on sudden cardiac death and rhythm	45
	Jun-ichi Okada (Univ. of Tokyo)	#	Multiscale multiphysics heart simulator based on finite element method	45

16:50–17:50 Talk invited by Applied Mathematics SectionYuji Kodama (Ohio State Univ.)[#] KP solitons and Mach reflection in shallow water

September 21st (Fri) Conference Room VI

9:00–12:00

- 35 Junichi Nakagawa (Nippon Steel Corp.)[#] Evolution of local maximums of non-symmetric solutions to some reaction-diffusion systems 10
 Gen Nakamura (Hokkaido Univ.)
 Satoshi Sasayama (Hokkaido Univ.)
 Haibing Wang (Hokkaido Univ.)
- 36 Kazumi Tanuma (Gunma Univ.)^{*} Perturbation of phase velocity of Rayleigh waves and Stoneley waves in anisotropic elastic media with orthorhombic principal part 15
 Chi-Sing Man (Univ. of Kentucky)
 Wenwen Du (Univ. of Kentucky)
- 37 Nobuyuki Higashimori[#] A direct numerical method for solving the initial boundary value problem of the three dimensional radiative transport equation 15
 (Hitotsubashi Univ.)
 Hiroshi Fujiwara (Kyoto Univ.)
- 38 Xiao-Yu Zhang[#] Effective condition numbers of finite difference methods for elliptic equations with singularities 15
 (Beijing Forestry Univ./Yamagata Univ.)
 Qing Fang (Yamagata Univ.)
- 39 Masashi Katsurada (Meiji Univ.)[#] Eigenvalue problems of the biharmonic operator in a square region —Finite difference analysis of chladni figures— 15
 Yuki Hirano (Anjo Higashi High School)
- 40 Kaname Matsue (Tohoku Univ.)[#] Rigorous numerical verification of saddle-saddle connections 20
 Nobito Yamamoto
 (Univ. of Electro-Comm.)
- 41 Tomohiro Hiwaki[#] Numerical verification of a domain included by the basin of a limit cycle 20
 (Univ. of Electro-Comm.)
 Nobito Yamamoto
 (Univ. of Electro-Comm.)
- 42 Takehiko Kinoshita (Kyoto Univ.)[#] A numerical verification method for solutions of IVP for ODEs using a linearized inverse operator 15
 Takuma Kimura (Waseda Univ.)
 Mitsuhiro T. Nakao
 (Sasebo Nat. Coll. of Tech.)

14:15–16:30

- 43 Yoshitaka Watanabe (Kyushu Univ.)[#] A numerical verification of the invertibility of linear operators with inverse norm estimations 15
 Mitsuhiro T. Nakao
 (Sasebo Nat. Coll. of Tech.)
- 44 Kenta Kobayashi (Hitotsubashi Univ.)[#] The circumradius condition on triangular elements and its applications 20
 Takuya Tsuchiya (Ehime Univ.)
- 45 Fumio Kikuchi[#] Strong L^p convergence associated with Rellich-type discrete compactness for discontinuous Galerkin FEM 20
 (Hitotsubashi Univ./Univ. of Tokyo)
 Daisuke Koyama
 (Univ. of Electro-Comm.)
- 46 Daisuke Koyama[#] An optimized Schwarz method for acoustic radiation problems 20
 (Univ. of Electro-Comm.)

- 47 Hirofumi Notsu (Waseda Univ.)[#] Error estimates of a pressure-stabilized characteristics finite element
Masahisa Tabata (Waseda Univ.) scheme for the Oseen equations 20
- 48 Hiroshi Kanayama (Kyushu Univ.)[#] Domain decomposition computation of thermal convection problems
based on the characteristic curve method 20

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

- Daisuke Tagami (Kyushu Univ.)[#] Numerical analysis of flow problems with finite element methods—From
error analysis to parallel computations—

Topology

September 18th (Tue) Conference Room IX

9:15–12:00

- 1 Masayuki Kawashima[#] On torus decompositions and line degenerated torus curves 10
(Tokyo Univ. of Sci.)
- 2 Misako Yokoyama (Shizuoka Univ.)[#] Finding a system of essential 2-suborbifolds 15
Yoshihiro Takeuchi
(Aichi Univ. of Edu.)
- 3 Selman Akbulut (Michigan State Univ.)^{*} Gluck twisting 4-manifolds with odd intersection form 10
Kouichi Yasui (Hiroshima Univ.)
- 4 Takuya Sakasai (Univ. of Tokyo)[#] The abelianization of the symplectic derivation Lie algebra of the free
Masaaki Suzuki (Akita Univ.) associative algebra 15
Shigeyuki Morita (Univ. of Tokyo)
- 5 Kazuki Toda (Univ. of Tokyo)^{*} The second cohomology of the homological Goldman Lie algebra 10
- 6 Nariya Kawazumi (Univ. of Tokyo)[#] On the Turaev cobracket and the Morita traces 20
Yusuke Kuno (Tsuda Coll.)
- 7 Jong Bum Lee (Sogang Univ.)[#] The geometry of Sol^3 15
- 8 Suyoung Choi (Ajou Univ.)[#] Rational homology of real toric variety over graph associahedra 15
Hanchul Park (Ajou Univ.)
- 9 Junhui Kim (Wonkwang Univ.)[#] A non-2-starcompact Tychonoff space whose hyperspace is 2-starcom-
pact 15

14:15–16:00

- 10 Kenshi Ishiguro (Fukuoka Univ.)[#] Pairings and monomorphisms of classifying spaces 10
Shotaro Kudo (Fukuoka Univ.)
Tomohiro Nakano
(Wajiro Junior High School)
- 11 Tomohisa Inoue (Shinshu Univ.)[#] The 31-stem homotopy groups of 9 and 10-dimensional spheres 10
Juno Mukai (Matsumoto Univ.)

- 12 Ipei Ichigi (Kochi Nat. Coll. of Tech.) The homotopy groups of a type two spectrum grading over the Picard
 Katsumi Shimomura (Kochi Univ.) group of \mathcal{L}_2 15
 Yutaro Tatehara (Kochi Univ.)
- 13 Takahito Naito (Shinshu Univ.)[#] String topology on rational Gorenstein spaces 15
- 14 Ryo Kato (Nagoya Univ.)[#] On the generalized retract conjecture 10
 Katsumi Shimomura (Kochi Univ.)
 Yutaro Tatehara (Kochi Univ.)
- 15 Tadayuki Haraguchi (Okayama Univ.)^{*} Model structure of numerically generated spaces 15

16:20–17:20 Talk invited by Topology Section

- Toshio Sumi (Kyushu Univ.)^{*} The Smith equivalence problem and Smith sets of Oliver groups

September 19th (Wed) Conference Room VIII + IX

10:30–10:45 Presentation Ceremony for 2012 Geometry Prize**10:50–11:50 Award Lecture for 2012 Geometry Prize**

- Ken'ichi Ohshika (Osaka Univ.)[#] Topological structure of deformation spaces of Kleinian groups

13:15–14:15 Award Lecture for 2012 Geometry Prize

- Yukinobu Toda (Univ. of Tokyo)[#] Stability conditions and Donaldson–Thomas type invariants on Calabi–
 Yau 3-folds

September 20th (Thu) Conference Room IX

9:30–11:45

- 16 Takuji Nakamura^{*} The state numbers of plane curves and knots 10
 (Osaka Electro-Comm. Univ.)
 Yasutaka Nakanishi (Kobe Univ.)
 Shin Satoh (Kobe Univ.)
 Yumi Toyama (Kobe Univ.)
- 17 Reiko Shinjo (Waseda Univ.)[#] On the inclusive relation of three properties of knot diagrams 10
 Kokoro Tanaka (Tokyo Gakugei Univ.)
- 18 Kokoro Tanaka (Tokyo Gakugei Univ.)[#] Interpretation of rack coloring knot invariants in terms of quandles
 Yuma Taniguchi (Tokyo Gakugei Univ.) 15
- 19 Masao Hara (Tokai Univ.)[#] On Jones polynomials of alternating pretzel knots 10
 Makoto Yamamoto (Chuo Univ.)
- 20 Atsuhiko Mizusawa (Waseda Univ.)[#] Yokota type invariants for oriented spatial graphs derived from Costantino–
 Murakami's invariants 15
- 21 Kenta Okazaki (Kyoto Univ.)[#] On the Turaev–Viro–Ocneanu invariants of 3-manifolds associated with
 the E_6 and E_8 subfactor planar algebras 10
- 22 Inasa Nakamura (Gakushuin Univ.)[#] Unknotting numbers and triple point cancelling numbers of torus-cov-
 ering knots 10
- 23 Yeonhee Jang (Nara Women's Univ.)[#] Distance of bridge presentations of links and essential surfaces in the
 link exteriors 15

14:15–15:40

- 24 Kengo Kishimoto (Osaka Inst. of Tech.)[#] Simple ribbon fusions for links II 10
 Tetsuo Shibuya (Osaka Inst. of Tech.)
 Tatsuya Tsukamoto
 (Osaka Inst. of Tech.)
- 25 Tetsuya Abe (Kyoto Univ.)[#] Annulus twists and diffeomorphic 4-manifolds 15
 In Dae Jong (Osaka Pref. Univ.)
- 26 Tetsuya Abe (Kyoto Univ.)[#] Omae’s knot and 12_{a990} are ribbon 15
 Motoo Tange (Univ. of Tsukuba)
- 27 Yuichi Yamada[#] Divide knot presentations of sporadic knots of Berge’s lens space surgery
 (Univ. of Electro-Comm.) 10
- 28 Motoo Tange (Univ. of Tsukuba)[#] Primitive/Seifert knots in the Poincaré homology sphere 15

16:00–17:00 Talk invited by Topology Section

- Koya Shimokawa (Saitama Univ.)[#] Tangle analysis of site-specific recombinations

September 21st (Fri) Conference Room IX

9:15–12:00

- 29 Yusuke Mizota (Kyushu Univ.)[#] Explicit construction of generators for the module of liftable vector
 fields 15
- 30 Masaru Kada (Osaka Pref. Univ.)[#] Galois–Tukey connection involving order structures of metrics 20
 Yasuo Yoshinobu (Nagoya Univ.)
- 31 Hanbiao Yang (Univ. of Tsukuba)^{*} Metrization of function spaces with the Fell topology 10
- 32 Katsuhisa Koshino (Univ. of Tsukuba)^{*} Characterizing infinite-dimensional manifolds and its applications 15
- 33 Jun Yagi (Kochi Univ.)[#] The topology of a model for ringed hydrocarbon molecules 15
 Satoru Goto (Tokyo Univ. of Sci.)
 Yutaka Hemmi (Kochi Univ.)
 Kazushi Komatsu (Kochi Univ.)
- 34 Akihiro Higashitani (Osaka Univ.)[#] Lattice multi-polygons 15
 Mikiya Masuda (Osaka City Univ.)
- 35 Takami Sato (Hokkaido Univ.)[#] Curves on a spacelike surface in three dimensional Lorentz–Minkowski
 space 10
- 36 Shin Kiriki (Kyoto Univ. of Edu.)[#] Existence of generic cubic homoclinic tangencies for Hénon maps 15
 Teruhiko Soma (Tokyo Metro. Univ.)
- 37 Toshikazu Ito (Ryukoku Univ.)^{*} Degeneracy locus of critical points of the distance function on a holo-
 morphic foliation 10
 Bruno Scárdua
 (Univ. Fed. Rio de Janeiro)
 Yoshikazu Yamagishi (Ryukoku Univ.)

Infinite Analysis

September 18th (Tue) Conference Room VII

9:30–11:45

- 1 Kazuo Kaneko (Yokkaichi Univ.)* Special solutions to the four dimensional Painlevé type equations 21, 21, 111, 111 and 31, 22, 22, 1111 15
- 2 Seiji Nishioka (Yamagata Univ.)# Approximation of Poincaré's new functions by rational functions 15
- 3 Yoshikatsu Sasaki (Hiroshima Univ.)# Third-degree superintegrable system solved by the sixth Painlevé transcendents 15
- 4 Hajime Nagoya (Kobe Univ.)# Realizations of affine Weyl group symmetries on the quantum Painlevé equations by fractional calculus 15
- 5 Hajime Nagoya (Kobe Univ.)# Symmetries of quantum Lax equations for the Painlevé equations 15
Yasuhiko Yamada (Kobe Univ.)
- 6 Koji Hasegawa (Tohoku Univ.)# Lax form for quantum discrete Painlevé VI equation 20
- 7 Gen Kuroki (Tohoku Univ.)# Sato–Wilson formalisms for quantum birational Weyl group actions of type A 30

14:15–14:45

- 8 Edwin Langmann (Roy. Inst. of Tech. Sweden)# Source identity and kernel functions for Inozemtsev-type systems 15
Kouichi Takemura (Chuo Univ.)
- 9 Masatoshi Noumi (Kobe Univ.)# Bispectral problem for the Ruijsenaars–Macdonald q -difference operators 15
Jun'ichi Shiraishi (Univ. of Tokyo)

15:00–16:00 Talk invited by Infinite Analysis Special Session

- Junichi Shiraishi (Univ. of Tokyo)# Vertex operators, Nekrasov partition functions and Macdonald polynomials

September 19th (Wed) Conference Room VII

10:30–11:50

- 10 Taichiro Takagi (Nat. Defense Acad. of Japan)# Commuting time evolutions in the tropical periodic Toda lattice 15
- 11 Atsuo Kuniba (Univ. of Tokyo)# Tetrahedron equation and quantum R matrices for spin representations 10
Sergey Sergeev (Univ. of Canberra)
- 12 Ryosuke Kodera (Kyoto Univ.)* Self-extensions and prime factorizations for simple $U_q(L\mathfrak{sl}_2)$ -modules 15
- 13 Jun Murakami (Waseda Univ.)# Quantum $6j$ -symbols for non-integral highest weight representations of $\mathcal{U}_q(\mathfrak{sl}_2)$ at root of unity 15
- 14 Motohiro Ishii (Univ. of Tsukuba)# Path model for representations of generalized Kac–Moody algebras 15

13:30–14:30 Talk invited by Infinite Analysis Special Session

- Yoshiyuki Kimura (Osaka City Univ.)# Quiver varieties and quantum cluster 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 ‡ marks denote PC presentations. The speakers with ★ marks are professors emeriti. If you find anything wrong in the program, do not hesitate to inform the Chair of Organizing Committee by sending e-mail to the address 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 Ito Campus. You may, however, find outdoor smoking spaces.

You can take lunch in Student Cafeteria in the building of Conference Rooms, a restaurant named BIG ORRANGE, and in a Chinese restaurant TEN-TEN in Inamori Memorial Hall.

The Mathematical Society of Japan has set up a webpage

<http://mathsoc.jp/i/>

which can be accessed by cell phones during the meeting. The Organizing Committee may announce there urgent notices such as traffic information on a typhoon storm day.

Official Party

Time: September 19th (Wed), 18:00–20:00

Venue: Inamori Center, Inamori Hall

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

Directions

2012 MSJ AUTUMN MEETING

Dates : September 18th (Tue)–21st (Fri), 2012
 Venue : Ito Campus, Kyushu University
 Address : Motooka 744, Nishi-ku, Fukuoka
 Contact to : Faculty of Mathematics, Kyushu Univeristy
 Motooka 744, Nishi-ku, Fukuoka
 Phone +81 (0)92 802 4402
 Fax +81 (0)92 802 4405
 E-mail kyushu12sept@mathsoc.jp
 During session : Phone +81 (0)80 4060 7734
 Fax +81 (0)92 802 4405
 Web Site : <http://mathsoc.jp/en/meeting/kyushu12sept/>

Conference Rooms

	Room Number	Research Sections
Conference Room I	Center Zone Bldg. No. 2, Room 2308	Algebra
Conference Room II	Center Zone Bldg. No. 2, Room 2307	Complex Analysis, Real Analysis, Featured Invited Talks
Conference Room III	Center Zone Bldg. No. 2, Room 2306	Functional Equations
Conference Room IV	Center Zone Bldg. No. 2, Room 2305	Functional Analysis
Conference Room V	Center Zone Bldg. No. 2, Room 2304	Statistics and Probability
Conference Room VI	Center Zone Bldg. No. 2, Room 2407	Applied Mathematics, Featured Invited Talks
Conference Room VII	Center Zone Bldg. No. 2, Room 2406	Infinite Analysis, Foundation of Mathematics and His- tory of Mathematics, Featured Invited Talk
Conference Room VIII	Center Zone Bldg. No. 2, Room 2404	Geometry
Conference Room IX	Center Zone Bldg. No. 2, Room 2403	Topology, Featured Invited Talks
Plenary Talks	Center Zone Bldg. No. 2, Room 2403 + 2403	
Open Lectures for Citizens	Faculty of Mathematics Bldg., Large Lecture Room No. 3	

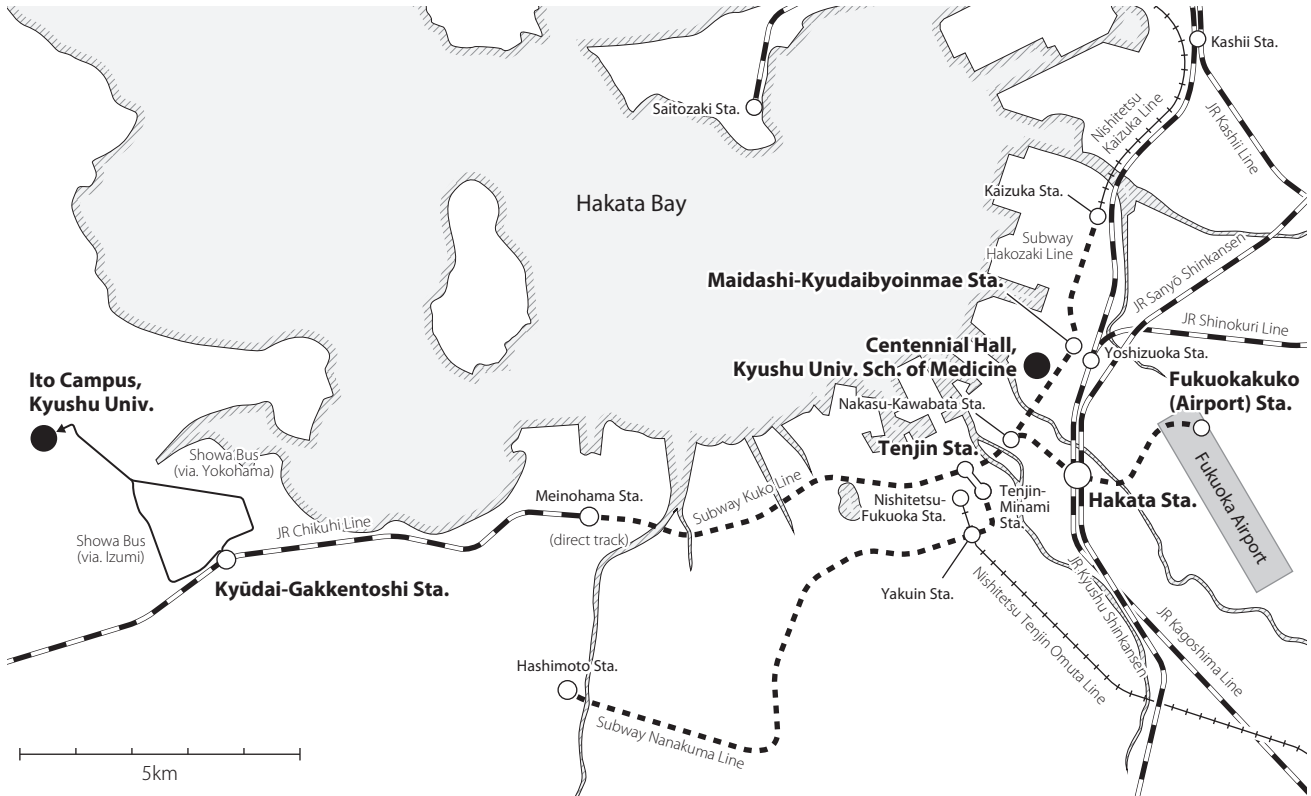
All the conference rooms are in the Center Zone Building No. 2 on the 3rd and 4th floors. Moreover below is the list of rooms with important function:

Other Rooms

Extended Abstracts and Membership	Center Zone Bldg. No. 2, Room 2211
Discussion Rooms	Center Zone Bldg. No. 2, Room 2212, 2310, 2409
Book Display and Sale	Center Zone Bldg. No. 2, Room 2215, 2216
Executive Committee, MSJ President	Center Zone Bldg. No. 2, Room 2214
Official Party	Inamori Center, Inamori Hall

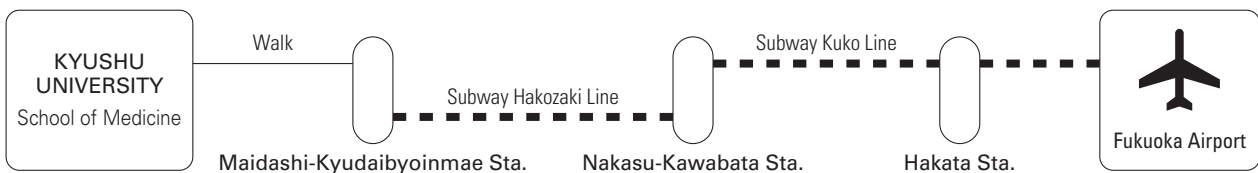
Access Maps

Hakata Area Map



Transport to the Venues

Access to Centennial Hall, School of Medicine (MSJ-KMS Joint Meeting)



From Fukuoka Airport

- Take Subway Kuko Line at Fukuoka Airport (K13) and get off Nakasu-Kawabata (K09) to transfer to Subway Hakozaŕi Line. Take a train bound for Kaizuka at Nakasu-Kawabata (H01) of Hakozaŕi Line and get off at Maidashi-Kyudaibyojinmae Station (H04). The Centennial Hall is around 8 minutes on foot from Maidashi-Kyudaibyojinmae Station.

From JR Hakata Station

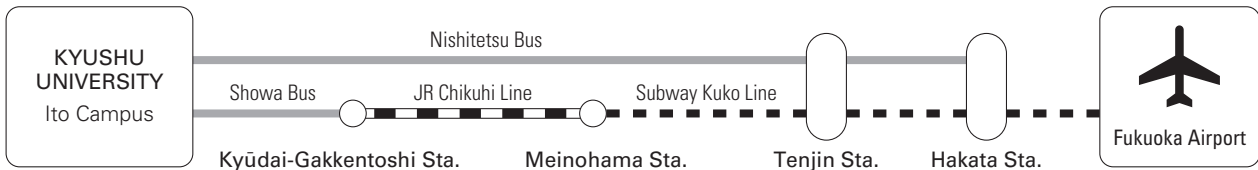
- Take Subway Kuko Line at Hakata Station (K11) and get off Nakasu-Kawabata (K09) to transfer to Subway Hakozaŕi Line. Take a train bound for Kaizuka at Nakasu-Kawabata (H01) of Hakozaŕi Line and get off at Maidashi-Kyudaibyojinmae Station (H04). The Centennial Hall is around 8 minutes on foot from Maidashi-Kyudaibyojinmae Station.

From Tenjin Area

- Take a train bound for Kaizuka at Tenjin Station (K08) of Subway Kuko Line and get off at Maidashi-Kyudaibyoinmae Station (H04). The Centennial Hall is around 8 minutes on foot from Maidashi-Kyudaibyoinmae Station.

Refer to the page <http://www.med.kyushu-u.ac.jp/100ko-do/english/directions/index.html> for more detailed information.

Access to Ito Campus of Kyushu University (MSJ Autumn Meeting 2012)



From Fukuoka Airport

- Take Subway Kuko Line at Fukuoka Airport (K13). The trains are bound for Meinohama Station or Karatsu. If the train you take is for Meinohama, transfer to JR Chikuhui Line at Meinohama and get off at Kyudaigakkentoshi Station. If it is for Karatsu, go over to Kyudaigakkentoshi Station. At Kyudaigakkentoshi Station, take a Showa Bus bound for Ito Campus. The nearest stop to the conference rooms is BIG ORANGE.

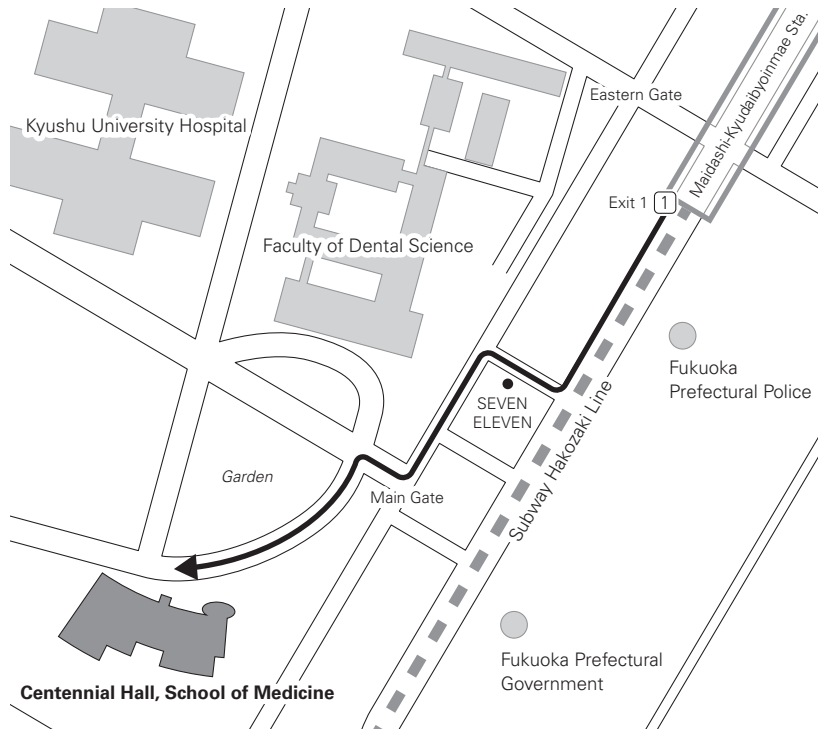
From JR Hakata Station

- Take Subway Kuko Line at City Subway Station “Hakata” (K11) as you start from the Airport.
- Take a Nishitetsu Bus bound for Ito Campus at Bus Terminal A.

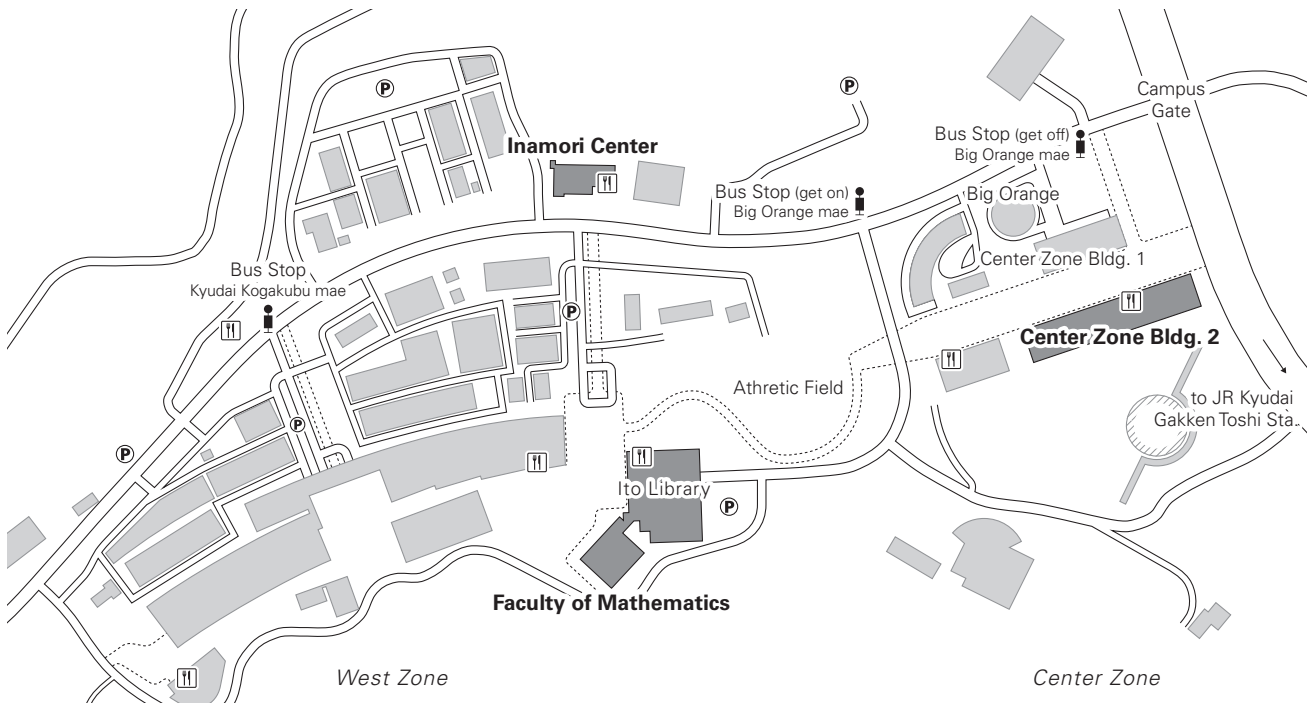
From Tenjin Area

- Take Subway Kuko Line at City Subway Station “Tenjin” (K08) as you start from the Airport.
- Take a Nishitetsu Bus bound for Ito Campus at Bus Terminals Tenjin(2B) or Tenjin-Kita(3).

Map around Centennial Hall, School of Medicine

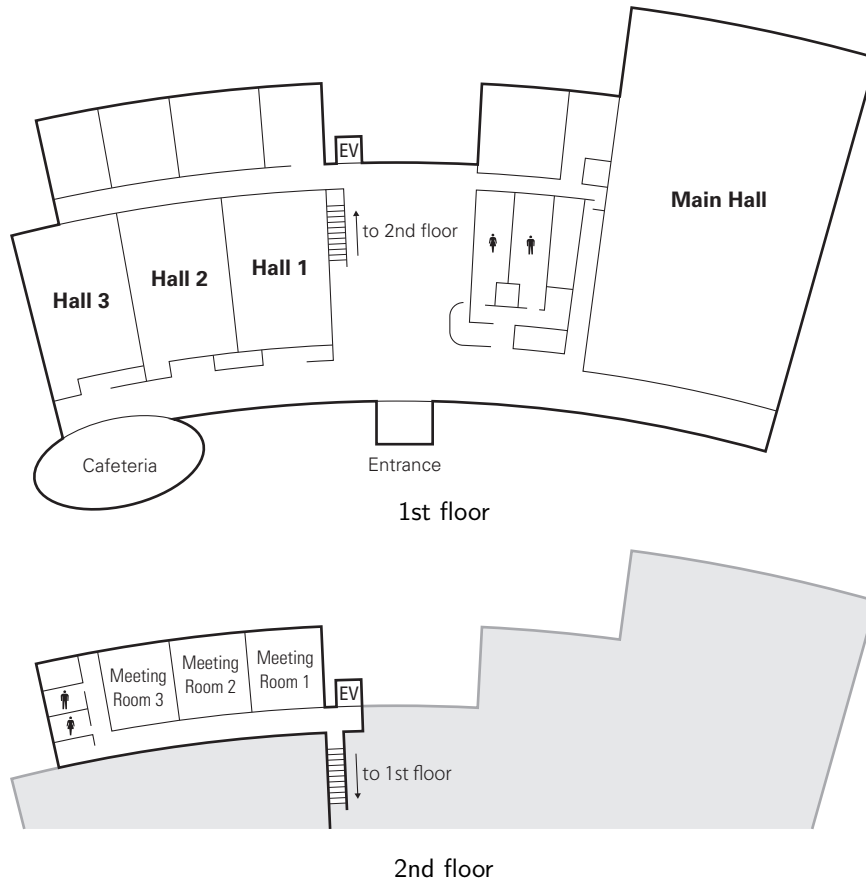


Map of Ito Campus

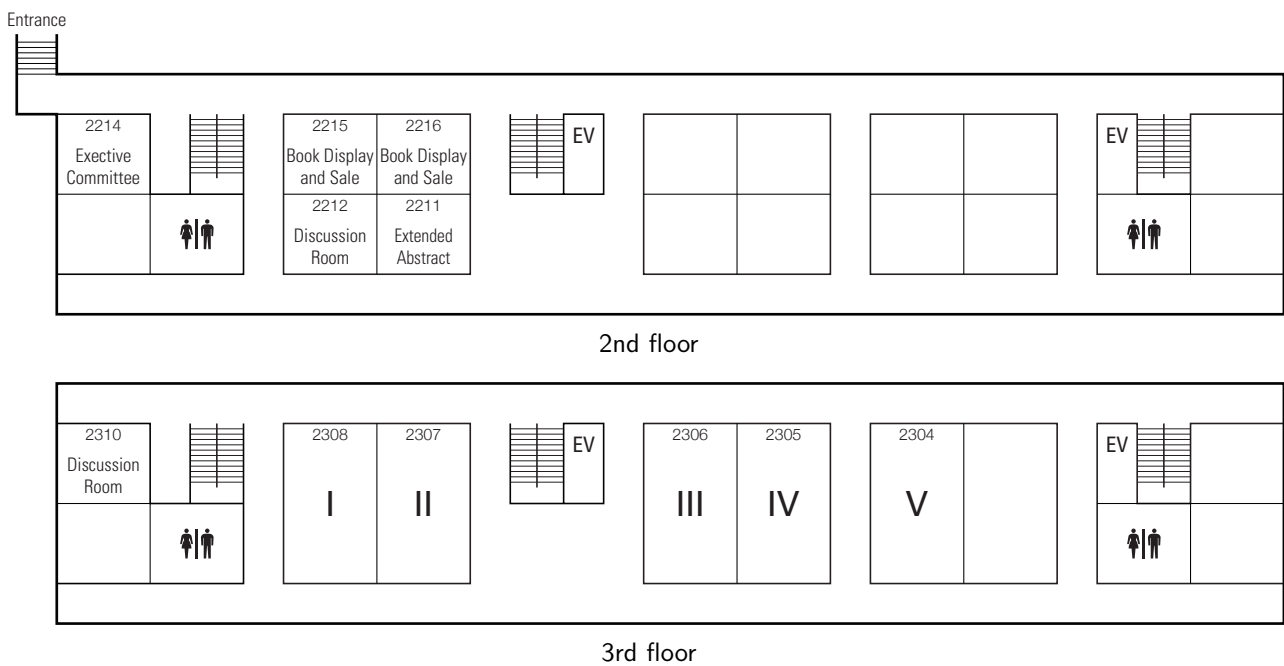


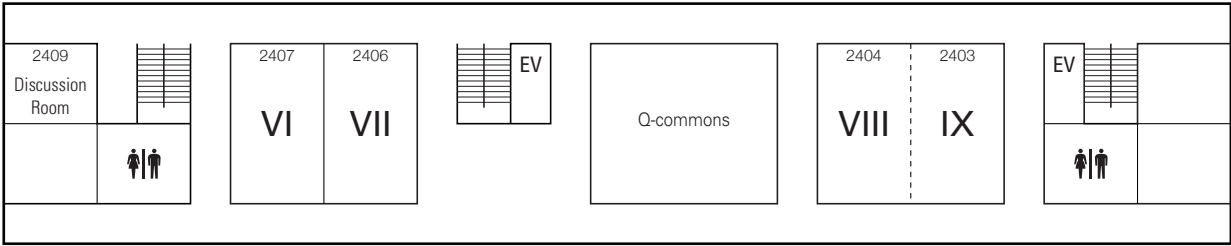
Floor Maps

Centennial Hall, School of Medicine (MSJ-KMS Joint Meeting)



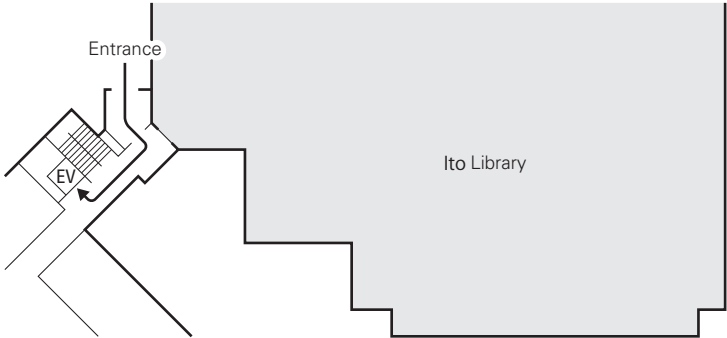
Ito Campus, Center No. 2 Building (MSJ Autumn Meeting)



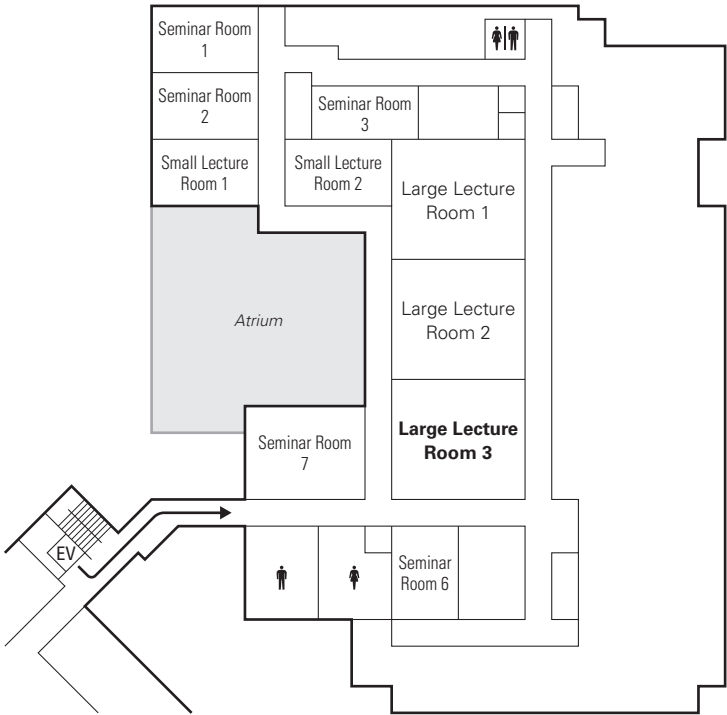


4th floor

Ito Campus, Faculty of Mathematics Building (Open Lectures for Citizens)



1st floor



3rd floor