

# Algebra

March 20th (Wed)

## 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.) # Frobenius morphisms and derived categories on two dimensional toric  
Hokuto Uehara (Tokyo Metro. Univ.) 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.) # Ulrich ideals and modules on 2-dimensional rational singularities ..... 15  
Shiro Goto (Meiji Univ.)  
Kazuho Ozeki (Yamaguchi Univ.)  
Ryo Takahashi (Nagoya Univ.)  
Kei-ichi Watanabe (Nihon Univ.)
- 15 Takayuki Hibi (Osaka Univ./JST CREST) # Normality of dilated polytopes ..... 15  
Akihiro Higashitani (Osaka Univ.)
- 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 (Rikkyo Univ./JST CREST) # Toric ideals and their circuits ..... 15  
Takayuki Hibi (Osaka Univ./JST CREST)

- 19 Akiyoshi Sannai (Nagoya Univ.)<sup>#</sup> Numerical characterizations of  $F$ -singularities ..... 10
- 20 Yusuke Nakajima (Nagoya Univ.)<sup>#</sup> Generalized  $F$ -signature of invariant subrings ..... 15  
Mitsuyasu Hashimoto (Nagoya Univ.)

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

- Takayuki Hayakawa (Kanazawa Univ.)<sup>#</sup> Birational morphisms of 3-dimensional algebraic varieties

March 21st (Thu)

### 9:00–12:00

- 21 Noriko Zaitsu (Eigakuin)<sup>#</sup> The field higher dimension over  $\mathbb{R}$  than the sedenions does not exist ..... 10
- 22 Shinichi Tajima (Univ. of Tsukuba)<sup>#</sup> Efficient symbolic computation of matrix polynomials with an extended  
Katsuyoshi Ohara (Kanazawa Univ.) Horner's rule ..... 10  
Akira Terui (Univ. of Tsukuba)
- 23 Shinichi Tajima (Univ. of Tsukuba)<sup>#</sup> On structure of invariant subspaces for square matrix ..... 10  
Katsuyoshi Ohara (Kanazawa Univ.)
- 24 Katsuyoshi Ohara (Kanazawa Univ.)<sup>#</sup> A randomized algorithm for computing minimal annihilating polynomi-  
Shinichi Tajima (Univ. of Tsukuba) als of square matrix ..... 10
- 25 Shuzo Izumi (Kinki Univ.)<sup>#</sup> A family of Artinian rings associated to a finite-dimensional vector  
space of holomorphic functions ..... 10
- 26 Shuzo Izumi (Kinki Univ.)<sup>#</sup> Taylor expansion and transcendency on an analytic manifold embedded  
in an affine space ..... 15
- 27 Kazuma Shimomoto (Meiji Univ.)<sup>\*</sup>  $F$ -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.)<sup>#</sup> Hochschild cohomology for a class of some self-injective special biserial  
algebras of rank four ..... 10
- 29 Hiroaki Komatsu<sup>\*</sup> Adjoint pair associated to generalized derivations of bimodules ..... 10  
(Okayama Pref. Univ.)
- 30 Yasuhiko Takehana<sup>#</sup> 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  
Tokuji Araya (Tokuyama Coll. of Tech.) ..... 15  
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)<sup>#</sup> 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)

**9:00–12:00**

- 34 Satoshi Yamanaka (Okayama Univ.)<sup>#</sup> On Galois polynomials of degree  $p$  in skew polynomial rings of derivation  
Shûichi Ikehata (Okayama Univ.) type II ..... 10
- 35 Mitsuhiro Miyazaki<sup>\*</sup> Tensor of indeterminates and invariant theory ..... 10  
(Kyoto Univ. of Edu.)
- 36 Kyouko Kimura (Shizuoka Univ.)<sup>\*</sup> Non-vanishingness of Betti numbers of edge ideals and complete bipar-  
tite graphs ..... 10
- 37 Takao Hayami (Hokkai-Gakuen Univ.)<sup>\*</sup> Hochschild cohomology ring of quaternion algebras ..... 10
- 38 Kenichi Shimizu (Nagoya Univ.)<sup>#</sup> On indicators of Hopf algebras ..... 15
- 39 Hiroki Sasaki (Shinshu Univ.)<sup>#</sup> Cohomology rings of tame blocks ..... 15
- 40 Tsuyoshi Mieazaki (Yamagata Univ.)<sup>#</sup> The McKay–Thompson series of Mathieu Moonshine modulo two .... 10  
Thomas Creutzig (TU Darmstadt)  
Gerald Höhn (Kansas State Univ.)
- 41 Yuya Mizuno (Nagoya Univ.)<sup>#</sup>  $\tau$ -tilting modules over preprojective algebras of Dynkin type ..... 15
- 42 Akihiko Hida (Saitama Univ.)<sup>#</sup> The action of the double Burnside algebra on the cohomology of the  
extraspecial  $p$ -group ..... 10
- 43 Yutaka Yoshii (Nara Nat. Coll. of Tech.)<sup>\*</sup> The Loewy series of PIMs for  $2(h-1)$ -deep weights for a finite Chevalley  
group ..... 10
- 44 Tomohiro Kamiyoshi<sup>#</sup> Counting subspaces generated by subsets of a root system ..... 10  
(Matsue Coll. of Tech.)  
Makoto Nagura  
(Nara Nat. Coll. of Tech.)  
Shinichi Otani (Kanto Gakuin Univ.)
- 45 Tsunekazu Nishinaka<sup>#</sup> Primitivity of group rings of locally freely productable groups ..... 10  
(Okayama Shoka Univ.)
- 46 Shuhei Tsujie (Hokkaido Univ.)<sup>#</sup> A canonical system of basic invariants of a finite reflection group ..... 10  
Norihiro Nakashima (Hokkaido Univ.)

**14:15–15:00**

- 47 Toshiyuki Kikuta (Osaka Inst. of Tech.)<sup>#</sup> A congruence property of Igusa’s cuspform of weight 35 ..... 15  
Hirotaka Kodama (Kinki Univ.)  
Shoyu Nagaoka (Kinki Univ.)
- 48 Shingo Sugiyama (Osaka Univ.)<sup>#</sup> Asymptotic behaviors of means of central values of automorphic  $L$ -  
functions for  $GL(2)$  ..... 10
- 49 Yasuko Hasegawa (Keio Univ.)<sup>#</sup> Central values of standard  $L$ -functions for  $Sp(2)$  ..... 10

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

Tomoyuki Arakawa (Kyoto Univ.)<sup>#</sup> Representation theory of  $W$ -algebras

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

Atsushi Ichino (Kyoto Univ.)<sup>#</sup> Automorphic representations and periods

## March 23rd (Sat)

**9:00–12:00**

- 50 Yoshio Tanigawa (Nagoya Univ.) \* On the means of number-theoretic error terms with shifted arguments  
Jun Furuya ..... 10  
(Okinawa Nat. Coll. of Tech.)
- 51 Yusuke Fujisawa (Nagoya Univ.) \* On estimates of partial sums of the Möbius and Liouville functions for  
Makoto Minamide ..... 15  
(Kyoto Sangyo Univ.)
- 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  $\beta$ -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
- 67 Masakazu Yamagishi \* Chebyshev polynomials, cyclotomic polynomials and twin primes ..... 10  
(Nagoya Inst. of Tech.)
- 68 Hajime Kuroiwa (Kochi Univ.) \* An application of a remainder represented by a splitting behavior .... 15

- 69 Yuuki Takai (Univ. of Tokyo/Keio Univ.) \* Indivisibility of relative class numbers of totally imaginary quadratic extensions of totally real number fields . . . . . 10
- 70 Tsuyoshi Itoh (Chiba Inst. of Tech.) \* On the  $\mu$ -invariant of tamely ramified Iwasawa modules . . . . . 15  
Yu Takakura (Kyushu Univ.)
- 71 Nao Takeshi (Tsuda Coll.) # Elliptic curves with good reduction everywhere over cubic fields . . . . . 10
- 72 Akinari Hoshi (Rikkyo Univ.) # Krull–Schmidt theorem fails for dimension 5 . . . . . 10  
Aiichi Yamasaki (Kyoto Univ.)
- 73 Aiichi Yamasaki (Kyoto Univ.) # Isoclinism families of the groups of order 256 . . . . . 10