RIMS Workshop 2022
Analytic Number Theory and Related Topics

Organizers: Yoshinori Yamasaki   (Ehime University)
Yu Yasufuku   (Nihon University)

Date: October 11 (Tue) 09:50 – October 14 (Fri) 16:40, 2022
Place: Room 420, RIMS, Kyoto University, Japan
Format: Hybrid (On-site and via Zoom Meeting)

Program

October 11 (Tue)

9:50 – 10:00   **Opening**

10:00 – 11:00   **Takashi Taniguchi (Kobe University)**
Improved error estimates for counting cubic fields
(joint work with Frank Thorne and Manjul Bhargava)

11:20 – 12:00   **Kota Saito (University of Tsukuba)**
A system of certain linear Diophantine equations on analogs of squares
(joint work with Yuya Kanado)

13:40 – 14:40   **Jaehyun Cho (Ulsan National Institute of Science and Technology)**
On analytic ranks of elliptic curves with prescribed torsion
(joint work with Keunyoung Jeong)

15:00 – 15:30   **Hideki Matsumura[Z] (Keio University)**
Elliptic analogue of irregular prime numbers for the p^n-division fields of the curves $y^2 = x^3 - (s^4 + t^2)x$
(joint work with Naoto Dainobu and Yoshinosuke Hirakawa)

15:50 – 16:20   **Yutaro Matsuno (Waseda University)**
On generalization of Hurwitz zeta functions on algebraic number fields and Euclidean minima

16:30 –   **Steering Committee Meeting**

October 12 (Wed)

9:30 – 10:30   **Dorian Goldfeld[Z] (Columbia University)**
Eisenstein series for $\mathrm{SL}(n, \mathbb{Z})$
(joint work with Eric Stade and Michael Woodbury)

10:50 – 11:30   **Yuta Suzuki (Rikkyo University)**
An average Manin conjecture with weak approximation on Fano hypersurfaces
(joint work with Yohsuke Matsuzawa)

13:10 – 13:50   **Tatsushi Tanaka (Kyoto Sangyo University)**
On interpolated multiple L-values
(joint work with Shin-ya Ito and Noriko Wakabayashi)

14:10 – 14:50   **Shin-ya Kadota (National Institute of Technology (KOSEN), Niihama College)**
On a unified double zeta function of Mordell-Tornheim type
(joint work with Takuya Okamoto, Masataka Ono and Koji Tasaka)

[Z]Talk by Zoom online

15:10 – 15:40 **Shintaro Murakami (Hirosaki University)**
Linear independence of certain gap series
(joint work with Yohei Tachiya)

16:00 – 16:40 **Hajime Kaneko (University of Tsukuba)**
New relation for the coefficients of cyclotomic polynomials
(joint work with Shigeki Akiyama)

October 13 (Thu)

9:30 – 10:30 **Simon Marshall (University of Wisconsin-Madison)**
Large values of eigenfunctions on hyperbolic manifolds
(joint work with Farrell Brumley)

10:50 – 11:30 **Yuya Murakami (Tohoku University)**
An asymptotic formula for false theta functions and quantum invariants of plumbed
homology spheres

13:10 – 13:50 **Shingo Sugiyama (Nihon University)**
Weighted one-level density for Dirichlet L-functions
(joint work with Ade Irma Suriajaya)

14:10 – 14:50 **Masatoshi Suzuki (Tokyo Institute of Technology)**
On the screw function of the Riemann zeta function

15:10 – 15:40 **Haruki Ide (Keio University)**
Algebraic independence of the values and the derivatives of certain power series,
infinite products, and Lambert type series

16:00 – 16:40 **Wataru Takeda (Tokyo University of Science)**
Topological properties and algebraic independence of sets of prime-representing
constants
(joint work with Kota Saito)

October 14 (Fri)

9:30 – 10:30 **Kohji Matsumoto (Nagoya University)**
On the value-distribution of the logarithms of symmetric power L-functions in
the level aspect
(joint work with Philippe Lebacque, Masahiro Mine and Yumiko Umegaki)

10:50 – 11:30 **Hirofumi Nagoshi[Z] (Gunma University)**
Joint probability distribution and its density function for values of the logarithms
of the Riemann zeta-function and related functions

13:10 – 13:50 **Makoto Kawashima (Nihon University)**
On linear independence of values of hypergeometric functions
(joint work with Sinnou David and Noriko Hirata-Kohno)

14:10 – 14:40 **Takuki Tomita (Keio University)**
On the series expression of the logarithmic derivative of an absolute zeta function
and its absolute Euler product
(joint work with Yoshinosuke Hirakawa)

15:00 – 15:30 **Yuichiro Toma (Nagoya University)**
Analytic properties and mean values of several double zeta-functions

15:50 – 16:30 **Ade Irma Suriajaya (Kyushu University)**
Zeros of derivatives of L-functions in the Selberg class on the left-half plane and
the left-half of the critical strip
(joint work with Sneha Chaubey and Suraj Singh Khurana)

16:30 – 16:40 **Closing**

[Z]Talk by Zoom online