

RIMS Workshop 2024

Analytic Number Theory and Related Topics



Organizers: Maki Nakasuji (Sophia University / Tohoku University)
Takashi Taniguchi (Kobe University)

Date: October 15 (Tue) 9:50 – October 18 (Fri) 16:30, 2024
Place: Room 420, RIMS, Kyoto University, Japan

Program

October 15 (Tue)

- 9:50 – 10:00 **Opening**
- 10:00 – 10:40 **Hajime Kaneko (Tsukuba University)**
Descriptive complexity results related to uniform distribution theory
(joint work with Bill Mance)
- 11:00 – 11:30 **Yuichiro Toma (Nagoya University)**
Recovering short generators via negative moments of Dirichlet L -functions
(joint work with Iu-Iong Ng)
- 11:50 – 12:20 **Yuto Tsuruta (Tohoku University)**
A q -analogue of Maesaka–Seki–Watanabe’s formula and its application
- 13:50 – 14:20 **Yuta Kadono (Tohoku University)**
On the Hurwitz-Lerch type central binomial series and the bivariate Eulerian polynomial
(joint work with Karin Ikeda)
- 14:40 – 15:20 **Siddhi Pathak (Chennai Mathematical Institute)**
Zeros of polynomials related to special values of L -functions
(joint work with Mrityunjoy Charan)
- 15:40 – 16:40 **Robert Lemke Oliver (Tufts University)**
Enumerating Galois extensions of number fields

October 16 (Wed)

- 9:30 – 10:10 **Hiro-aki Narita (Waseda University)**
Sup norm bounds for some theta lifts to $O(1, 8n + 1)$
(joint work with Simon Marshall and Ameya Pitale)
- 10:30 – 11:10 **Andrei Seymour-Howell (University of Bristol)**
Murmurations of Maass forms
(joint work with Andrew R. Booker, Min Lee, David Lowry-Duda and Nina Zubrilina)
- 11:30 – 12:00 **Satoshi Tsuchimi (Kobe University)**
A multivariate analogue of the Zwegers’ μ -function
(joint work with Genki Shibukawa)
- 13:40 – 14:20 **Yoshinori Mizuno (Nagoya Institute of Technology)**
Mitsui’s Dirichlet series for Hermitian matrices
(joint work with Roland Matthes)
- 14:40 – 15:20 **Kenta Endo (National Institute of Technology, Suzuka College)**
Limit theorem for the hybrid universality theorem of zeta-functions

15:40 – 16:40 **Hirofumi Tsumura (Tokyo Metropolitan University)**
Various types of multiple polylogarithms and related zeta values
(joint work with Masanobu Kaneko)

October 17 (Thu)

- 9:30 – 10:10 **Yuta Suzuki (Rikkyo University)**
Telhcirid's theorem on arithmetic progressions
(joint work with Gautami Bhowmik)
- 10:30 – 11:10 **Taka-aki Tanaka (Keio University)**
Algebraic independence of the values of a certain function invariant under the action of the dihedral group
- 11:30 – 12:00 **Hayato Kanno (Tohoku University)**
Multiple Eisenstein series of level N and Goncharov's coproduct for the iterated integrals
- 13:40 – 14:10 **Deng Yuqi (Kyushu University)**
Eichler-Selberg relations for singular moduli
(joint work with Toshiki Matsusaka and Ken Ono)
- 14:30 – 15:10 **Kota Saito (Tsukuba University / Sophia University)**
Mills' constant is irrational
- 15:30 – 16:30 **Jaroslav Hančl (University of Ostrava)**
Some recent results in Diophantine approximation

October 18 (Fri)

- 9:30 – 10:30 **Timothy Trudgian (UNSW Canberra)**
Weaker can often be better
- 10:50 – 11:30 **Iekata Shiokawa (Keio University)**
Generalized Stern polynomials and related continued fractions
(joint work with Daniel Duverney)
- 11:50 – 12:20 **Keita Nakai (Nagoya University)**
Joint universality for the Riemann zeta-function with general shifts
- 14:00 – 14:30 **Masaya Kitajima (Nagoya University)**
Generalized Bessel functions corresponding to lattice point problems of generalized circles
- 14:50 – 15:30 **Makoto Kawashima (Meiji Gakuin University)**
"Non-vanishing criterion for the p -adic Hurwitz zeta values"
(joint work with Anthony Poëls)
- 15:50 – 16:30 **Masatoshi Suzuki (Institute of Science Tokyo)**
On M -functions and screw functions originating from Goldbach's problem
(joint work with Kohji Matsumoto)
- 16:30 – 16:40 **Closing**