

RIMS Workshop 2023
Analytic Number Theory and Related Topics



Organizers: Yu Yasufuku (Nihon University)
Maki Nakasuji (Sophia University / Tohoku University)

Date: Tuesday, October 10, 2023 ~ Friday, October 13, 2023
Place: Room 420, RIMS, Kyoto University, Japan
Format: Hybrid (On-site and via Zoom Meeting)

Program

Tuesday, October 10

- 09:45–09:50 Opening
- 09:50–10:50 Koichi Kawada (Iwate University)
On the Waring–Goldbach problem — techniques developed in the current century
- 11:05–11:35 Takashi Nakamura (Tokyo University of Science)
L-functions with Riemann’s functional equation and the Riemann hypothesis
- 11:50–12:20 Atsushi Katsuda (Kyushu University)
Prime numbers and Prime closed geodesics: Similarity and Differences
- 13:40–14:00 Eisuke Otsuka (Tohoku University)
On iterated integrals on some specific algebraic curves of degree 2
- 14:05–14:35 Shin-ichi Yasutomi (Toho University)
On continued fractions that converge simultaneously under the topology of the real numbers and the *p*-adic topology
- 14:50–15:20 Wataru Takeda (Tokyo University of Science)
Brocard–Ramanujan problem for norm forms over radical fields
- 15:35–16:05 Tomohiro Yamada (Kobe University)
Lehmer’s totient problem
- 16:20–16:50 Toshiki Matsusaka (Kyushu University)
Curious congruences for cyclotomic polynomials

Wednesday, October 11

- 09:30–10:30 Michael Coons (California State University, Chico)
Towards a characterization of regular sequences
- 10:45–11:15 Alan Filipin (University of Zagreb)
On the Fibonacci and Lucas numbers as products of three repdigits

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- 11:30–12:00 Noriko Hirata-Kohno (Nihon University)
Effective method and applications in Diophantine problems
- 13:40–14:00 Yuichiro Toma (Nagoya University)
On the order estimation of the double L -function
- 14:05–14:35 Shota Inoue (Kanagawa University)
Moments of the Riemann zeta-function twisted by arguments
- 14:50–15:20 Hirotaka Kobayashi (Nagoya University)
Mean values of the Riemann zeta function on arithmetic progressions
- 15:35–16:05 Tomokazu Onozuka (Kyushu University)
Gregory coefficients and Hurwitz–Lerch multiple zeta functions at non-positive integer points
- 16:20–16:50 Masatoshi Suzuki (Tokyo Institute of Technology)
On the Hilbert space defined as the completion of Weil’s hermitian form

Thursday, October 12

- 09:20–10:20 Gautam Chinta (City University of New York, City College)
Planes in \mathbb{Z}^4
- 10:35–11:05 Masahiro Mine (Waseda University)
A weak form of strong universality for the Hurwitz zeta-function
- 11:20–11:40 Karin Ikeda (Kyushu University)
On real zeros of the Hurwitz zeta function
- 11:45–12:15 Masanori Katsurada (Keio University)
An application to Mellin–Barnes type integrals to some mean squares of Dirichlet–Hurwitz–Lerch L -functions
- 13:40–14:00 Kohei Takehira (Tohoku University)
On the number of points with bounded dynamical canonical height
- 14:05–14:35 Kota Saito (University of Tsukuba)
Finiteness of solutions to linear Diophantine equations on Piatetski–Shapiro sequences
- 14:50–15:20 Yasuhiro Ishitsuka (Kyushu University)
Exponential sums on binary quartics and its application
- 15:35–16:05 Yusuke Tsuda (University of Tsukuba)
Gaps between prime numbers that satisfy the Goldbach equation
- 16:20–16:50 Ade Irma Suriajaya (Kyushu University)
The average number of Goldbach representations and zero-free regions of the Riemann zeta-function

Friday, October 13

- 09:30–10:30 Andrew Booker (University of Bristol)
All about murmurations
- 10:45–11:15 Min Lee (University of Bristol)
Selberg type trace formula for automorphic forms of weight 1
- 11:30–12:00 Takafumi Miyazaki (Gunma University)
Number of solutions to a special type of Pillai's equation
- 13:40–14:00 Yuta Kadono (Tohoku University)
On an integral representation of Schur type multiple polylogarithms
- 14:05–14:35 Kyosuke Nishibiro (Tokyo Metropolitan University)
On generalization of duality formulas for the Arakawa-Kaneko type zeta functions
- 14:50–15:20 Hideto Iwata (Nagoya University)
On some analytic properties of a function associated with the Selberg class satisfying certain special conditions
- 15:35–16:05 Shin-ichiro Seki (Aoyama Gakuin University)
A new proof of Sakugawa–Seki's and Kontsevich's functional equations via a connector
- 16:05–16:10 Closing