Workshop "Number Theory and Ergodic Theory"

Period: February 8 –10, 2020
Venue: Kanazawa University Satellite Plaza
-Address: 16 Nishicho 3-Bancho, Kanazawa-shi, Ishikawa, 920-0913, JAPAN
-Tel: 076-232-5343 (+81-76-232-5343),
-URL: http://www.adm.kanazawa-u.ac.jp/ad_koho/satellite/map/map.html
Room: February 8, 9:00 – 13:00 Communicating Salon on the 1st Floor
February 8, 13:00 – Lecture Room on the 2nd Floor

Organizer: Hiroshi Fujisaki (Kanazawa University)
Maki Furukado (Yokohama National University)
Shin-ichi Yasutomi (Toho University)
Hisatoshi Yuasa (Osaka Kyoiku University)

*Please take your trash to home with you. Thank you for your cooperation.

Program

Saturday, February 8

9:00 – 9:40 Masato Takei (Yokohama National University)
Probabilistic analysis of Takagi class functions: Rate of convergence
- Joint work with Shoto Osaka (Yokohama National University)

10:00 – 10:40 Hiroki Takahasi (KiPAS, Keio University)
Large deviation principle for arithmetic functions in the backward continued fraction expansion

11:00 – 11:40 Toru Sera (Kyoto University)
A conditional limit theorem for the Pomeau–Manneville map
- Joint work with Jon Aaronson (Tel Aviv University)

11:40 – 13:40 Lunch Break

13:40 – 14:10 Yu Ito (Kyoto Sangyo University)
Resolution of sigma-fields for multiparticle finite-state action evolutions with infinite past
- Joint work with Toru Sera (Kyoto University) and Kouji Yano (Kyoto University)

14:30 – 15:10 Naoto Shimaru (Okayama University of Science)
On behaviors of irrational rotations
- Joint work with Keizo Takashima (Okayama University of Science)

15:40 – 16:20 Shoichi Kamada (Tokyo Metropolitan University)
On failure probabilities of reductions from subset sum problems to lattice problems, and multifractal analysis

16:40 – 17:30 Teturo Kamae (Osaka City University)
Non-correlated pattern sequences
- Joint work with Zheng Yu (Yangtze University) and
Peng Li (Huazhong University of Science and Technology)

Sunday, February 9

9:00 – 9:20 Hiroshi Fujisaki (Kanazawa University)
A simple construction of the full-length binary sequences based on the discretized Markov β-transformations and their correlational properties

9:40 – 10:20 Kenichiro Yamamoto (Nagaoka University of Technology)
Topological entropy of the set of generic points for (α-β)-shifts

10:40 – 11:30 Shintaro Suzuki (Keio Institute of Pure and Applied Sciences)
The set of conjugates of all Yrrap numbers

11:30 – 13:30 Lunch Break

13:30 – 14:20 Hajime Kaneko (University of Tsukuba)
Hensel's lemma and application for the base-b expansions of integers

14:40 – 15:20 Dong Han Kim (Dongguk University)
Intrinsic Diophantine approximation of the sphere
- Joint work with Byungchul Cha (Muhlenberg College)

15:50 – 16:30 Ryotaro Okazaki (The university of Tokyo)
Using Number Theory Software Sagemath

16:50 – 17:40 Shigeki Akiyama (University of Tsukuba)
A geometric characterization of pure discrete symbolic dynamics

Monday, February 10

9:00 – 9:40 Yuto Nakajima (Kyoto University)
Slicing the fractal imaginary cubes

10:00 – 10:50 Jun-ichi Tamura (Inst. for Math. and Comp. Sci., Tsuda College)
Some problems and results around Pentagonal Number Theorem of Euler, and Moonshine, etc.

11:10 – 11:50 Kota Saito (Nagoya University)
Szemerédi's theorem and fractal dimensions of sets not containing weak arithmetic progressions

11:50 – 14:00 Lunch Break

14:00 – 17:00 Free Discussion

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- Grant-in-Aid for Scientific Research (C) 19K03558 (PI: Michihiro Hirayama (Tsukua University))

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