

Logic, Algebraic system, Language and Related Areas in Computer Science

Organizer: Munehiro Iwami

(Shimane University)

E-mail: munehiro@cis.shimane-u.ac.jp

The Kyoto University Research Institute for Mathematical Science (RIMS) workshop

“ Logic, Algebraic system, Language and Related Areas in Computer Science”

will be held as follows:

Period: 2022-02-16 — 2022-02-18

Location: Online (Zoom)

Program

Feb. 16 (Wednesday)

Chair Munehiro Iwami Shimane University

9:30~10:00(JST) Hisaya Tsutsui Embry-Riddle Aeronautical University

On projectivity and primitivity of ideals in certain rings

10:00~10:50 **Invited Talk**

Benjamin Fine Fairfield University

The Tarski Theorems and Extensions to Free Group Rings

Break

Chair Hisaya Tsutsui Embry-Riddle Aeronautical University

11:10~11:40 Noriaki Kamiya Aizu University

On triality relations of certain eight dimensional algebras

11:40~12:00 Thodsaporn Kumduang Chiang Mai University

The partial clones of terms with fixed numbers of totally occurring variables

Break

Chair Noriaki Kamiya Aizu University

13:30~14:00 Tsunekazu Nishinaka University of Hyogo

R. Thompson's group F and its group algebras

14:00~14:20 Masaaki Kumazawa Mino Jiyu Gakuen High School

On Iseki's condition (S) in BCK-algebras

14:20~14:50 Kanaru Ikegami, Katsunori Hongou, Satoshi Yamanaka

National Institute of Technology, Tsuyama College

On Galois polynomials with cyclic Galois group in skew polynomial rings

Break

Chair Szilard Fazekas Akita University

15:10~15:40 Tomoko Adachi Shizuoka Inst. of Sci. and Tech.

Extension of Sudoku to 3-dim. space

15:40~16:10 Tatiana Jajcayova Comenius University

On computational aspects of finding inverse monoids of partial automorphisms

16:10~16:40 Cancellation

Feb.17 (Thursday)

Chair Shuji Jimbo Okayama University

9:30~10:00(JST) Cancellation

10:00~10:30 Jiryo Komeda Kanagawa Institute of Technology

On Weierstrass numerical semigroups generated by four elements

Break

Chair Tomoko Adachi Shizuoka Inst. of Sci. and Tech.

10:50~11:20 Ken-etsu Fujita Gunma University, Toshihiko Kurata Hosei University

A general form on the logic puzzle of Boolos

11:20~11:50 Takao Yuyama Tokyo Institute of Technology

Word Problem for Groups and its Rational Transduction

Break

Chair KONDO Michiro Tokyo Denki University

13:30~14:00 Saaya Konno, Akihiro Yamamura Akita University

Left simple and left cancellative semigroups without idempotents

14:00~14:30 Teruki Taguchi, Akihiro Yamamura Akita University

Correspondence between down-up alternating permutations and increasing 1-2 trees

14:30~14:50 Huang Xinhao, Szilard Fazekas, Akihiro Yamamura Akita University

Slightly Improved Dynamic Algorithm for LIS

Break

Chair Tsunekazu Nishinaka University of Hyogo

15:10~15:40 Szilard Fazekas Akita University

Some complexity measures of unconventional automata

15:40~16:10 Carl-Fredrik NYBERG-BRODDA University of Manchester

Congruential languages and special rewriting systems

16:10~17:00 **Invited Talk**

Emanuele Rodaro Politecnico di Milano

On the presentation of semigroups defined by Mealy machines

Feb.18 (Friday)

Chair Yoshiyuki Kunimochi Shizuoka Inst. of Sci. and Tech.

9:30~10:00(JST) Haruki Fukaura, Akihiro Yamamura Akita University

Diagrams over groups and small cancellation conditions

10:00~10:30 Attila Egri-Nagy Akita International University
Computational Holonomy Decomposition of Finite Transformation Semigroups -
Progress Report

Break

Chair Ken-etsu Fujita Gunma University

10:50~11:20 KONDO Michiro Tokyo Denki University
On extended order algebras

11:20~11:50 Shuji Jimbo Okayama University
A Study of Constraints on Eulerian Circuits

Break

Chair Jiryo Komeda Kanagawa Institute of Technology

13:30~14:00 Yuji Kobayashi Laboratory of mathematics and games
Visiting old, learn new

14:00~14:30 Yoshiyuki Kunimochi Shizuoka Inst. of Sci. and Tech.
Regularity of strong codes

Break

Chair Yuji Kobayashi Laboratory of mathematics and games

14:50~15:20 Akihiro Yamamura Akita University
Euler numbers appearing in tree of Parikh matrices of permutations

15:20~16:10 **Invited Talk**

Robert Jajcay Comenius University

Computer aided constructions of cages

16:10~16:40 Koichi Arimoto University of Teacher Education Fukuoka
On a formula of parametric version for Heronian triangles