

REPORT FROM EATCS JAPAN CHAPTER

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EATCS-JP/LA Workshop on TCS and Presentation Awards

The 23rd *EATCS-JP/LA Workshop on Theoretical Computer Science* was held at Research Institute of Mathematical Sciences, Kyoto University, January 27th to 29th, 2025. (The details can also be found, although this website is written in Japanese, at

https://la-symposium.github.io/2024/la2024w_program_v3.pdf.)

Every year, we choose the best presenter and the best student presenter. This year, we celebrated the following presentation as the 23rd LA/EATCS-Japan Presentation Award:

“*Dudeney’s Dissection is Optimal*” presented by Erik D. Demaine (Massachusetts Institute of Technology), **Tonan Kamata**, and Ryuhei Uehara (Japan Advanced Institute of Science and Technology).

We celebrated the following presentation as the 14th LA/EATCS-Japan Student Presentation Award:

“*Induced Subgraph Isomorphism Reconfiguration Under Extended Reconfiguration Rules*” presented by **Tatsuhiko Suga**, Akira Suzuki, Yuma Tamura, and Xiao Zhou (Tohoku University).

The awards were recognized publicly on the last day, January 29th, 2025.

Congratulations!

This workshop is jointly organized by *LA symposium*, Japanese association of theoretical computer scientists. Its purpose is to give a place to discuss topics on all aspects of theoretical computer science. This workshop is an unrefereed meeting. All submissions are accepted for the presentation. There should be no problem of presenting these papers at refereed conferences and/or journals. This meeting is familiar and widely open for everyone who is interested in theoretical computer science. It is held twice a year (January/February and July/August). If you have a chance, I recommend that you attend it. Check the website http://www.dais.is.tohoku.ac.jp/eatcs_japan/ for further details. The list of the presentations is as below; you can see the activity of the Japanese society of theoretical computer science.

Program of the 23rd EATCS-JP/LA workshop on TCS

In the following program, “*” indicates speakers. The number [xxS] means it is given by a student speaker.

- [1S] Efficient Enumeration of Block-Cutpoint Trees
*Mengze Qian, Ryuhei Uehara (*Japan Advanced Institute of Science and Technology*)
- [2] Enumeration of Paths and Minimal Vertex Cuts on Directed Hypergraphs
*Kazuhiro Kurita (*Nagoya University*), Kevin Mann (*University of Trier*)
- [3] On Path Enumeration in Temporal Graphs
*Yu Nakahata (*Nara Institute of Science and Technology*)
- [4S] An Algorithm and Data Structure for Steiner Tree Query
*Kosuke Sugiyama (*Nagoya University*), Tesshu Hanaka (*Kyushu University*),
Hirotaka Ono (*Nagoya University*), Kunihiko Sadakane (*The University of Tokyo*)
- [5S] Generating Extended Formulations using Non-Deterministic ZSDD
*Kazuki Takakura (*Kyushu University*), Kohei Hatano (*Kyushu University / RIKEN-AIP*), Eiji Takimoto (*Kyushu University*)
- [6S] Chord Similarity-Based Music Transformation
*Kosei Matsushita, Kazuhiro Kurita, Hirotaka Ono (*Nagoya University*)
- [7S] Induced Subgraph Isomorphism Reconfiguration under Extended Reconfiguration Rules
*Tatsuhiko Suga, Akira Suzuki, Yuma Tamura, Xiao Zhou (*Tohoku University*)
- [8S] Parameterized Complexity of 2-Layer and Outer k -Planarity Testing
Yasuaki Kobayashi (*Hokkaido University*), *Yuto Okada (*Nagoya University*),
Alexander Wolff (*Universität Würzburg*)
- [9] Max-Distance Sparsification for Diversification and Clustering
*Soh Kumabe (*CyberAgent*)
- [10] A Simple Maximal Common Subsequence Index of Multiple Strings
*Yoshifumi Sakai (*Tohoku University*)
- [11S] Equivalence of Graph Regular Expressions with Rewriting Rules and Spanning Tree Automata
*Hitoshi Ino, Akio Fujiyoshi (*Ibaraki University*)
- [12S] Analysis of Specific Boards in Strings-and-Coins
*Souta Kobayashi, Ryo Yoshinaka, Ayumi Shinohara (*Tohoku University*)
- [13S] Shapley Value for Rectified Linear Function Game
*Shunta Yamazaki, Tomomi Matsui (*Institute of Science Tokyo*)
- [14S] Shapley Value for Traveling Salesman Games with the Symmetric Monge Property
*Shota Tsukada, Tomomi Matsui (*Institute of Science Tokyo*)
- [15S] The 5/6-Density Threshold Conjecture for Pinwheel Scheduling with Real-Valued Periods
*Kouta Miyagi, Hiroshi Fujiwara, Katsuhisa Ouchi (*Shinshu University*)
- [16S] The Optimal Question Number for YOMEN
*Kouki Hirano (*Nagoya University*), Hironori Kiya (*Osaka Metropolitan University*),
Tesshu Hanaka (*Kyushu University*), Hirotaka Ono (*Nagoya University*)
- [17S] NP-Completeness of Envy-Free and Exchange-Stable Seat Arrangement Problems on Grid Graphs

- *Sota Kawase, Shuichi Miyazaki (*University of Hyogo*)
- [18S] Solving Numerical Puzzles using Quantum Annealing
*Chiho Fukunaga, Seiya Okubo (*University of Shizuoka*)
- [19S] Characteristics of Sorting Algorithms Learned via Deep Reinforcement Learning
*Kouki Shiga, Kanta Ozawa, Koichi Yamazaki (*Tokyo Denki University*)
- [20S] Complexity of the Steiner Walk Problem with Vertex-Weight Functions
*Ryutaro Suzuki, Rin Saito, Takehiro Ito (*Tohoku University*)
- [21S] A Loopless Algorithm for Generating Gray Code of Binary Trees Encoded in Left-Child Sequences
*Naoya Okuizumi, Kenji Mikawa (*Maebashi Institute of Technology*)
- [22S] Dominating Set Gray Code Problem on Complete Split Graphs
*Kokai Toranosuke, Naoki Domon, Akira Suzuki, Takahiro Suzuki, Yuma Tamura, Xiao Zhou (*Tohoku University*)
- [23] The Convergence Rate of Computable Predictions
*Kenshi Miyabe (*Meiji University, Department of Mathematics*)
- [24] On Parameters Causing the Hardness of the Matrix Compression Problem
*Dominik Köppl (*University of Yamanashi*), Vincent Limouzy (*University Clermont Auvergne*), Andrea Marino (*University of Florence*), Giulia Punzi (*University of Pisa*), Takeaki Uno (*National Institute of Informatics*)
- [25] Dudeney's Dissection is Optimal
Erik D. Demaine (*Massachusetts Institute of Technology*), *Tonan Kamata, Ryuhei Uehara (*Japan Advanced Institute of Science and Technology*)
- [26S] Edge Overlap-freeness of Prisms with a Continuous Parameter
Tonan Kamata (*Japan Advanced Institute of Science and Technology*), Jason S. Ku (*National University of Singapore*), *Takumi Shiota (*Kyushu Institute of Technology*), Ryuhei Uehara (*Japan Advanced Institute of Science and Technology*)
- [27S] Dissections of a Net of a Regular Octahedron into Nets of Regular Octahedra
*Yuta Nomi (*Japan Advanced Institute of Science and Technology*), Takumi Shiota (*Kyushu Institute of Technology*), Tonan Kamata, Ryuhei Uehara (*Japan Advanced Institute of Science and Technology*)
- [28S] Construction of Common Unfolding by Fixed-Point Propagation Method
*Taiga Goto, Tonan Kamata, Ryuhei Uehara (*Japan Advanced Institute of Science and Technology*)
- [29] Finding Distinct 2-Maximal Independent Sets is Hard
*Yasuaki Kobayashi (*Hokkaido University*), Kazuhiro Kurita (*Nagoya University*)
- [30S] A Fast Algorithm for the Cartesian Tree Isomorphism Problem with k Mismatches
*Yoshihiro Kotaki, Souta Kobayashi, Ryo Yoshinaka, Ayumi Shinohara (*Tohoku University*)
- [31S] Dynamic Programming Algorithm for Lot-Sizing Problem with Variable Production Capacity
*Yu Osawa, Akiyoshi Shioura (*Institute of Science Tokyo*)
- [32S] An Improved Analysis of Non-Clairvoyant Makespan Minimization Scheduling with Predictions
*Naoto Kaneko, Hiroshi Fujiwara, Katsuhisa Ouchi (*Shinshu University*)
- [33S] Online Bin Packing Algorithms for Two Item Sizes

- *Kiryu Furuya, Hiroshi Fujiwara, Katsuhisa Ouchi (Shinshu University)
- [34] Self-Stabilizing Graph Exploration by a Single Agent
*Yuichi Sudo (Hosei University), Sayaka Kamei (Hiroshima University),
Fukuhito Ooshita (Fukui University of Technology)
- [35S] A Note on the Treewidth of Toroidal Grids
Tatsuya Gima (Hokkaido University), *Hiraku Morimoto, Yuto Okada, Yota
Otachi (Nagoya University)
- [36S] Additive Sensitivity of Dictionary Based Compression and String Attractors
*Yuto Fujie, Hiroki Shibata, Yuto Nakashima, Shunsuke Inenaga (Kyushu Uni-
versity)
- [37] On Burrows-Wheeler Transform and Dictionary Compression
*Hideo Bannai (Institute of Science Tokyo), Tomohiro I (Kyushu Institute of Tech-
nology), Yuto Nakashima (Kyushu University)
- [38S] Pattern Matching on Run-Length Grammar-Compressed Strings in Linear Time
*Yuto Iguchi, Ryo Yoshinaka, Ayumi Shinohara (Tohoku University)

Past/Forthcoming Events

WALCOM 2025 & 2026

International Conference and Workshops on Algorithms and Computation (WALCOM) conference has been established to encourage the researchers of theoretical computer science in Asia, especially, India and Bangladesh. Nowadays, there are many participants from a wide range of Asia, not so many from Europe so far. The organizers give a big welcome to many attendees from Europe. The 19th WALCOM (WALCOM 2025) was held in Chengdu, China, from February 28th to March 2nd, 2025. See <https://tcsuestc.com/walcom2025> for more information on WALCOM 2025. The next WALCOM will be held in Perugia, Italy. This is the first WALCOM in Europe.

AAAC 2025

Annual Meeting of the Asian Association for Algorithms and Computation (AAAC) aims at promoting collaborations in theoretical computer science in Asia (but not restricted in the region). The 16th AAAC was held in Hong Kong, on May 31st and June 1st, 2025. See <https://conference.cs.cityu.edu.hk/aaac2025/> for more information on AAAC 2025.

CG Week 2025

The Computational Geometry Week (CG Week) is the premier international forum for advances in computational geometry and its many applications. CG Week combines a number of events, most notably the 41st International Symposium on Computational Geometry (SoCG 2025), the associated Media Exposition (CG:ME), workshops, the Young Researchers Forum (CG:YRF), and the CG Challenge (CG:SHOP). The 2025 edition will be held in Kanazawa, Japan, from June 23rd to 27th, 2025. See <https://socg25.github.io/index.html> for more information on CG Week 2025.

WAAC 2025

The 25th Japan-Korea Joint Workshop on Algorithms and Computation (WAAC 2025) will be held in Sapporo, Japan, on August 19th and 20th, 2025. The aim of this workshop

is to provide a forum for researchers working on algorithms and the theory of computation, to promote the exchange of recent results, to foster new collaborations among researchers. Historically, the workshop has established for the purpose of collaboration of researchers of Korea and Japan; however, participation from any country is welcome. See <https://waac-alg-comp.github.io/2025/> for more information of WAAC 2025.

ISAAC 2025

International Symposium on Algorithms and Computation (ISAAC) is intended to provide a forum for researchers working on algorithms and computation. The 36th edition of this symposium will be held in Tainan, Taiwan, from December 7th to 10th, 2025. See <https://isaac2025.csie.ncku.edu.tw/> for more information on ISAAC 2025.

Submission Deadline: June 30, 2025 (Anywhere on Earth)

Notification of Acceptance: August 30, 2025

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EATCS JAPAN CHAPTER

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