Report from EATCS Japan Chapter

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EATCS-JP/LA Workshop on TCS and Presentation Awards

The 21st *EATCS-JP/LA Workshop on Theoretical Computer Science* was held fully face-to-face at Research Institute of Mathematical Sciences, Kyoto University, January 30th to February 1st, 2023. (The details can also be found, although this website is written in Japanese, at
`https://la-symposium2022.github.io/winter_program.html`.)

Every year, we choose the best presenter and the best student presenter. This year, we celebrated the following presentation as the 21st LA/EATCS-Japan Presentation Award:

> "*Hardness Self-Amplification*", Shuichi Hirahara (National Institute of Informatics), **Nobutaka Shimizu** (Tokyo Institute of Technology)

We celebrated the following presentation as the 12th LA/EATCS-Japan Student Presentation Award:

> "*Lipschitz Continuous Algorithms for Graph Problems*", **Soh Kumabe** (The University of Tokyo), Yuichi Yoshida (National Institute of Informatics)

The awards were recognized publicly on the last day, February 1st, 2023.

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 unofficial, 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.ecei.tohoku.ac.jp/alg/EATCS-J/` 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 21st EATCS-JP/LA workshop on TCS (January 30th to February 1st, 2023)

In the following program, "*" indicates non-student speakers, while "**" indicates student speakers. The number [S*xx*] means it is in student session, namely, it is a shorter talk than a regular one.

[1] Groups whose Word Problem is Accepted by an Abelian G-automaton
***Takao Yuyama (Tokyo Institute of Technology)*

[2] Theoretical limits of the stochastic multiprocessor scheduling problem
***Daiki Suruga (Nagoya University)*

[3] Online Job Scheduling with k Servers
***Jiang Xuanke (Kyushu University), Sherief Hashima (RIKEN AIP), Kohei Hatano (Kyushu University / RIKEN AIP), Eiji Takimoto (Kyushu University)*

[4] Computing maximal generalized palindromes
**Mitsuru Funakoshi (Kyushu University), Takuya Mieno (University of Electro-Communications), Yuto Nakashima, Shunsuke Inenaga (Kyushu University), Hideo Bannai (Medical and Dental University), Masayuki Takeda (Kyushu University)*

[5] Reverse Engineering of Right-to-Left Position Heaps
***Koshiro Kumagai, Diptarama Hendrian, Ryo Yoshinaka, Ayumi Shinohara (Tohoku University)*

[6] Quantum Search-to-Decision Reduction for the LWE problem
***Kyohei Sudo (Osaka University), Masayuki Tezuka (National Institute of Technology, Tsuruoka College), Keisuke Hara (National Institute of Advanced Industrial Science and Technology / Yokohama National University), Yusuke Yoshida (Tokyo Institute of Technology)*

[7] Distributed Quantum Interactive Proofs: Parallelization and Application
*Francois Le Gall, **Masayuki Miyamoto, Harumichi Nishimura (Nagoya University)*

[8] Hardness Self-Amplification
*Shuichi Hirahara (National Institute of Informatics), *Nobutaka Shimizu (Tokyo Institute of Technology)*

[9] Overlapping of Lattice Unfolding for Cuboids
***Takumi Shiota (Kyushu Institute of Technology), Tonan Kamata, Ryuhei Uehara (Japan Advanced Institute of Science and Technology)*

[10] On the Security of Chameleon-Hash Functions with Ephemeral Trapdoors
***Kafu Hamada, Yoshida Yusuke, Keisuke Tanaka (Tokyo Institute of Technology)*

[11] Turedo, a novel class of Turing machines for programming RNA co-transcriptional folding
*Daria Pchelina (Université Paris 13), Nicolas Schabanel (ENS Lyon), *Shinnosuke Seki (The University of Electro-Communications), Guillaume Theyssier (Aix-Marseille Université)*

[12] Application of inside and outside judgment method in complex shape
**Satoshi Kodama (International Professional University of Technology in Tokyo)*

[13] Algorithmic Meta-Theorems for Combinatorial Reconfiguration Revisited

***Tatsuya Gima (Nagoya University), Takehiro Ito (Tohoku University), Yasuaki Kobayashi (Hokkaido University), Yota Otach (Nagoya University)*

[14] Accessing the Suffix Array via Φ^{-1}-Forest
*Christina Boucher (University of Florida), *Dominik Köppl (TMDU), Herman Perera (University of Florida), Massimiliano Rossi (University of Florida)*

[15] On The Number of Maximal Cliques in Two-Dimensional Random Geometric Graphs: Euclidean and Hyperbolic
***Hodaka Yamaji (The University of Tokyo)*

[16] On a Nash equilibrium of the path planning game under bidirectional traffic costs
***Yuya Sekiguchi (Nagoya University), Tesshu Hanaka (Kyushu University), Hirotaka Ono (Nagoya University)*

[17] Optimal LZ-End Parsing
*Hideo Bannai (Tokyo Medical and Dental University), Mitsuru Funakoshi (Kyushu University), Kazuhiro Kurita (Nagoya University), *Yuto Nakashima (Kyushu University), Kazuhisa Seto (Hokkaido University), Takeaki Uno (National Institute of Informatics)*

[18] Computation of Minimal Unique Substrings and Maximal Repeats on Necklaces
***Ryoki Moritake, Koshiro Kumagai, Diptarama Hendrian, Ryo Yoshinaka, Ayumi Shinohara (Tohoku University)*

[S1] Lipschitz Continuous Algorithms for Graph Problems
***Soh Kumabe (The University of Tokyo), Yuichi Yoshida (National Institute of Informatics)*

[S2] Computing an optimal coalition structure on fractional hedonic games
***Airi Ikeyama (Nagoya University), Tesshu Hanaka (Kyushu University), Hirotaka Ono (Nagoya University)*

[S3] Constrained LCS of Non-linear Texts
***Yonemoto Yuuki, Nakashima Yuto, Inenaga Shunsuke (Kyushu University)*

[S4] Certification of Bin-Packing Algorithms using Why3
***Masaya Sano, Hiroshi Fujiwara, Hiroaki Yamamoto (Shinshu University)*

[S5] Largest repetition factorizations of Fibonacci words
***Kaisei Kishi, Yuto Nakashima, Shunsuke Inenaga (Kyushu University)*

[S6] Computational Complexity of Shironabe Puzzles
***Kosuke Shinohara, Tetsuya Araki, Kazuyuki Amano (Gunma University)*

[S7] Lower bounds on quantum query complexity for linear list search
***Yutaro Sakai, Akinori Kawachi (Mie University)*

[S8] Concurrent Signal Passing by Co-transcriptional Folding
***Naoya Iwano, Yu Kihara (The University of Electro-Communications)*

[S9] Gray code generation on left-child sequences of binary trees
***Sawaka Hori, Kenji Mikawa (Maebashi Institute of Technology)*

[S10] Improved Analysis of Decryption Error Probability for the Post-Quantum Cryptosystem HQC
***Kohei Yamaguchi, Akinori Kawachi (Mie University)*

[S11] On the distribution of minimal a, b separators dominating each other
***Kohei Nomura, Koichi Yamazaki (Tokyo Denki University)*

[S12] Probabilistic Logspace Algorithm for Spectral Gap Amplification of Stochastic Matrices
***Kensuke Suzuki, Maharshi Ray (Mie University), Francois Le Gall (Nagoya University), Akinori Kawachi (Mie University)*

[S13] On a spectral lower bound of treewidth
***Kohei Noro, Tatsuya Gima (Nagoya University),Tesshu Hanaka (Kyushu University), Yota Otachi, Hirotaka Ono (Nagoya University)*
[S14] Graph Linear Notations with Regular Expressions
***Ren Mimura, Kyohei Miyabe, Kengo MiyamotoK, Akio Fujiyoshi (Ibaraki University)*
[S15] The Upper Bound on the Minimum Density for Anti-slide Packing Using 2x2x1 Pieces
***Kento Kimura, Kazuyuki Amano (Gunma University)*
[S16] Collecting Balls on a Line by Robots with Limited Energy
***Nicolas Honorato Droguett, Kazuhiro Kurita (Nagoya University),Tesshu Hanaka (Kyushu University), Yota Otachi, Hirotaka Ono (Nagoya University)*
[S17] The ultimate sign of second-order holonomic sequences
*Kawamura Akitoshi, **Hagihara Fugen (Kyoto University)*
[S18] Extension of non-deterministic ZDD by introduction of set difference operation and application for set similarity searching
***Shota Shikama (Kyushu University)*
[S19] Approximation Algorithms for Finding the Myerson Centrality of a Network
***Yuto Kuwabara, Masaaki Matsumoto, Toshinori Yamada (Saitama University)*
[S20] Structural Parameterizations of Vertex Integrity
***Ryota Murai, Tatsuya Gima (Nagoya University), Tesshu Hanaka (Kyushu University), Yasuaki Kobayashi (Hokkaido University), Hirotaka Ono, Yota Otachi (Nagoya University)*
[S21] On nonnegative k-submodular relaxation
***Kotaro Uchida, Yuni Iwamasa (Kyoto University)*
[S22] Cartesian Tree Subsequence Matching on Indeterminate Strings
***Kento Hirose (Kyushu University), Takuya Mieno (The University of Electro-Communications), Yuto Nakashima, Shunsuke Inenaga (Kyushu University)*
[S23] A fast algorithm for finding a maximal common subsequence of multiple strings
***Miyuji Hirota, Yoshifumi Sakai (Tohoku University)*
[S24] Head-or-Tail Bin-Packing Algorithms for Sorted Items
***Rina Atsumi, Hiroshi Fujiwara, Hiroaki Yamamoto (Shinshu University)*

Forthcoming Event

ISAAC 2023

International Symposium on Algorithms and Computation (ISAAC) is intended to provide a forum for researchers working on algorithms and computation. The 34th edition of this symposium will be held in Kyoto from December 3rd to 6th, 2023. In this year, all the accepted papers are expected to be presented on-site by some of the authors. See `https://www.kurims.kyoto-u.ac.jp/isaac/isaac2023/` for more information on ISAAC 2023.

Submission Deadline: June 30, 2023 (Anywhere on Earth)

Notification of Acceptance: September 4, 2023

OPODIS 2023
International Conference on Principles of Distributed Systems (OPODIS) is an open forum for the exchange of state-of-the-art knowledge concerning distributed computing and distributed computer systems. All aspects of distributed systems are within the scope of OPODIS, including theory, specification, design, performance, and system building. The 27th edition of this conference will be held in Tokyo from December 6th to 8th, 2023. See `https://opodis.net` for more information on OPODIS 2023.

WALCOM 2024
The 18th International Conference and Workshops on Algorithms and Computation (WALCOM 2024) will be held at Kanazawa, Japan from March 18th to 20th, 2024. This conference was established to encourage young researchers of theoretical computer science in Asia, especially, India and Bangladesh. Nowadays, there are many participants not only from a wide range of Asia but also from Europe and North America. See `https://www.kono.cis.iwate-u.ac.jp/~yamanaka/walcom2024/` for more information on WALCOM 2024.

New member of EATCS-J (by Ryuhei Uehara)

Professor Yukiko Yamauchi had been a secretary of the Japan chapter of EATCS for long years. Now she has retired, and Professor Yuto Nakashima has joined as a secretary. All members thank Yukiko for her kind support, and welcome Yuto to our team!

EATCS Japan Chapter

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Secretary:	Yukiko Yamauchi
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