

REPORT FROM THE JAPANESE CHAPTER

R. Uehara (JAIST)

EATCS-JP/LA Workshop on TCS and Presentation Awards

The tenth *EATCS/LA Workshop on Theoretical Computer Science* was held at Research Institute of Mathematical Sciences, Kyoto University, January 30 to February 1, 2012. **Dr. Akio Fujiyoshi** (Ibaraki University) who presented the following paper, was selected at the tenth EATCS/LA Presentation Award.

Minimum connected spanning subgraph problem with label selection and its application to chemical structural OCR by Akio Fujiyoshi (Ibaraki University) and Masakazu Suzuki (Kyushu University).

The award will be given him at the Summer LA Symposium held in July 2012.

>From this time, we establish another presentation award, named “EATCS/LA Student Presentation Award” to encourage students. **Mr. Tamotsu Kobayashi** (Saitama University) who presented the following paper, was selected at the first EATCS/LA Student Presentation Award.

Minimum Enclosing Rectangle with Fixed Aspect Ratio by Tamotsu Kobayashi and Takashi Horiyama (Saitama University).

The award has been given him at the last day, February 1, 2012.

Congratulations!

This workshop is jointly organized with *LA*, Japanese association of theoretical computer scientists. Its purpose is to give a place for discussing topics on all aspects of theoretical computer science. That is, this workshop is an unrefereed meeting. All submissions are accepted for the presentation. There should be no problem of presenting these papers in refereed conferences and/or journals. We hold it twice a year (January/February, and July/August). If you have a chance, I recommend you to attend it. You can find the program of the last workshop in Appendix of this report.

New Web page of EATCS Japan Chapter

The web page of EATCS Japan Chapter was on <http://www.misojiro.t.u-tokyo.ac.jp/EATCS-J/index.html>, but it has been moved to <http://www.jaist.ac.jp/~uehara/EATCS-J/>. Please update your links.

Appendix: Program of EATCS-JP/LA workshop on TCS (January 30 to February 1, 2012)

In the following program, each [Sx] means student talk, while [x] means ordinary talk (student talks are shorter). Each “**” indicates a student speaker, and “*” indicates just a speaker. Talks are given in the following order:

- [1] On a Faster Algorithm for Counting Perfect Matchings
*Taisuke Izumi, Tadashi Wadayama (*Nagoya Institute of Technology*)
- [2] Formula Decomposition into Ternary Majorities
*Kenya Ueno (*Kyoto University*)
- [3] A Satisfiability Algorithm for Formulas over the Full Binary Basis
Kazuhiisa Seto, *Suguru Tamaki (*Kyoto University*)
- [4] Enumerating Separating Families of Bipartitions
**Takahisa Toda (*Kyoto University*), Ivo Vigan (*The City University of New York*)
- [5] Hybrid-Automata-Theoretic Verification of CPU-DRP Reconfigurable Systems
**Ryo Yanase, gaoying, Shota Minami, Satoshi Yamane (*Kanazawa University*)
- [6] Formal Verification of Probabilistic Timed System Based on an Abstraction Refinement
**Takaya Shimizu, Atsushi Morimoto, Satoshi Yamane (*Kanazawa University*)
- [7] On limit cycle of composited cellular automata
*Toshikazu Ishida (*kyushu sangyo university*), Shuichi Inokuchi (*Kyushu University*)
- [8] Classification of spherical tilings by congruent quadrangles
*Yohji Akama (*Mathematical Institute, Tohoku University*), Yudai Sakano (*JICA*), Kosuke Nakamura (*Department of Chemistry, Tohoku University*)
- [S1] Heuristic Algorithms for Rectilinear Block Packing
**Yannan Hu, Hideki Hashimoto, Shinji Imahori, Mutsunori Yagiura (*Nagoya University*)
- [S2] Heuristic algorithm for a vertex pricing problem
**Sakaki Nakamura, Akiyoshi Shioura (*Graduate School of Information Sciences, Tohoku University*)
- [S3] A Randomized Algorithm for Finding Frequent Elements in Streams Using $O(\log \log N)$ Space
**Masatora Ogata (*Kyushu University*), Yukiko Yamauchi (*Kyushu University*), Shuji Kijima, Masafumi Yamashita (*Kyushu University*)
- [S4] An algorithm for the Hamiltonian circuit problem on bipartite distance-hereditary graphs
**Masahide Takasuka, Tomio Hirata (*Nagoya University*)
- [9] Earley’s parsing algorithm and Petri net controlled grammars
*Tashin Nishida (*Department of Information Sciences, Toyama Prefectural University*)
- [10] The relationship between language classes in terms of insertion and locality
*Kaoru Fujioka (*Kyushu University*)
- [11] A Polynomial-Time Algorithm for Checking the Equivalence of Deterministic Restricted One-Counter Transducers Which Accept by Final State
*Mitsuo Wakatsuki (*The University of Electro-Communications*), Kazushi Seino (*Toshiba Solutions Corporation*), Etsuji Tomita, Tetsuro Nishino (*The University of Electro-Communications*)

- [12] Efficient Reduction of Square Factors in Strings
*Peter Leupold (*Universitat Rovira i Virgili*)
- [13] Decremental construction of seaweed bijections
*Yoshifumi Sakai (*Tohoku University*)
- [14] Minimum Enclosing Rectangle with Fixed Aspect Ratio
**Tamotsu Kobayashi, Takashi Horiyama (*Saitama University*)
- [15] Complexity of Smooth Ordinary Differential Equations
**Hiroyuki OTA (*University of Tokyo*), Akitoshi Kawamura (*University of Tokyo*), Martin Ziegler, Carsten Rösnick (*Technische Universität Darmstadt*)
- [16] On QMA Protocols with Two Short Quantum Proofs
Francois Le Gall (*The University of Tokyo*), **Shota Nakagawa, Harumichi Nishimura (*Osaka Prefecture University*)
- [17] Limiting Negations in Probabilistic Circuits
*Hiroki Morizumi (*Shimane University*)
- [18] Greedy Algorithms for Multi-Queue Buffer Management Policies with Class Segregation
Toshiya Itoh, **Seiji Yoshimoto (*Tokyo Institute of Technology*)
- [19] Memory Efficient Path Finding Algorithm
**Tatsuya Imai (*Tokyo Institute of Technology*)
- [20] An Efficient Algorithm for General-purpose Computation on GPU
**Hidetoki Tanaka, Osamu Watanabe (*Tokyo Institute of Technology*)
- [21] Probabilistic stabilization under probabilistic schedulers
*Yukiko Yamauchi (*Kyushu University*), Sébastien Tixeuil (*Paris 6*), Masafumi Yamashita (*Kyushu University*)
- [S5] Hierarchy of reversible logic elements with memory
**Yuuta Mukai, Kenichi Morita (*Hiroshima University, Graduate School of Engineering*)
- [S6] A Study of Selection Method of Separate Points Set for mm-GNAT
**Pingfang Xie (*Graduate School of Sciences, Tokai University*), Kensuke Onishi (*School of Sciences, Tokai University*)
- [S7] Automata inspired by biochemical reaction
**Fumiya Okubo (*Waseda University*), Satoshi Kobayashi (*University of Electro-Communications*), Takashi Yokomori (*Waseda University*)
- [S8] Complexity and winning ways of trick taking games
**Kenichiro Nakai, Yasuhiko Takenaga (*Department of Communication Engineering and Informatics, Graduate School of Informatics and Engineering, The University of Electro-Communications*)
- [S9] On the compressibility of concatenated sequence
**Toshihiko Yusa (*Tokyo Institute of Technology*)
- [S10] A graph class of unit disk graphs with chain-like structure
**Hayashi Takashi, Kino Toru, Kuwabara Yuto, Nagasawa Ryosuke, Shibata Yuka, Yamazaki Koichi (*Gunma University Department of Computer Science*)
- [22] The Matroid Intersection Problem with Priority Constraints
*Naoyuki Kamiyama (*Kyushu University*)
- [23] Minimum connected spanning subgraph problem with label selection and its application to chemical structural OCR
*Akio Fujiyoshi (*Ibaraki University*), Masakazu Suzuki (*Kyushu University*)

- [24] Row/column operation of tables with the octgrid model
*Shinji Koka (Nihon University), *Takaaki Goto (UEC), Kensei Tsuchida (Toyo University), Tetsuro Nishino (UEC), Takeo Yaku (Nihon University)*
- [25] On the base-line location problem for the maximum weight region decomposable into base-monotone shapes
*Takashi Horiyama (Saitama University), Takehiro Ito (Tohoku University), Hiro-taka Ono (Kyushu University), *Yota Otachi (Tohoku University), Ryuhei Uehara (Japan Advanced Institute of Science and Technology), Takeaki Uno (National Institute of Informatics)*
- [26] Cover time of multiplex random walks on random graphs
***Yusuke Hosaka, Yukiko Yamauchi, Shuji Kijima (Department of Informatics Kyushu University), Hiro-taka Ono (Department of Economic Engineering Kyushu University), Masafumi Yamashita (Department of Informatics Kyushu University)*
- [27] Approximating Steiner Tree and Tree Cover in Directed Graphs
***Hibi Tomoya, Fujito Toshihiro (Toyohashi University of Technology)*
- [28] On the Unit-length Embedding of Graphs on a Square Grid
***Kenji Takada, Kazuyuki Amano (Gunma University)*
- [S11] Pattern Formation by Asynchronous Mobile Robots
***Nao Fujinaga, Yukiko Yamauchi, Shuji Kijima, Masafumi Yamashita (Graduate School of ISEE, Kyushu University)*
- [S12] Hiding an Image into Different Images
***Yuko Moriyama, Tomomi Matsui (Chuo University)*
- [S13] Optimization Model for Mosaic Art Construction
***Ryo Nakatsubo, Tomomi Matsui (Chuo University)*
- [S14] Efficient Sampling Method for Monte Carlo Tree Search Problem
***Kazuki Teraoka, Kohei Hatano, Eiji Takimoto, Masayuki Takeda (Kyushu University)*

THE JAPANESE CHAPTER

CHAIR: OSAMU WATANABE
V. CHAIR: KAZUHISA MAKINO
SECRETARY: RYUHEI UEHARA
EMAIL: EATCS-JP@IS.TITECH.AC.JP
URL: [HTTP://WWW.JAIST.AC.JP/~UEHARA/EATCS-J/](http://www.jaist.ac.jp/~uehara/EATCS-J/)

