

REPORT FROM THE JAPANESE CHAPTER

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EATCS-JP/LA Workshop on TCS and Presentation Award

The ninth *EATCS/LA Workshop on Theoretical Computer Science* was held at Research Institute of Mathematical Sciences, Kyoto University, February 1 to 3, 2011. **Dr. Takashi Horiyama** (Saitama University) who presented the following paper, was selected at the ninth EATCS/LA Presentation Award.

Edge-Developments of Platonic Solids Never Overlap by Takashi Horiyama and Wataru Shoji (Saitama University).

The award will be given him at the Summer LA Symposium held in July 2011. *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 (February 1 to 3, 2011) in Appendix of this report.

On March 11, 2011...

As you should know, we have a big earthquake in Japan. But you may not know what we were doing on the time. On that day, we had a celebration conference of the 60th birth year of Professors David Avis, Kazuo Iwama, and Naoki Kato at Kyoto University (Figure 1)¹. There are around 150 theoretical computer scientists at the conference. I mean, almost all the people working in this area were there. In Japan, we have a big geological gap between east Japan (including Hokkaido, Tohoku (Sendai), Tokyo, etc) and west Japan (including Nagoya, Ishikawa (Kanazawa), Kyoto, Osaka, Kobe, Kyushu, etc). So, on the time, only around half of us took notice of the

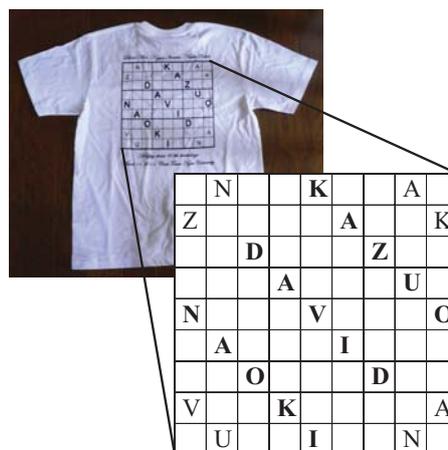


Figure 1: Memorial T-shirt. (Caution: Not so easy!!)

¹ See <http://www.lab2.kuis.kyoto-u.ac.jp/aik60/> although in Japanese.



Figure 2: Group photos at the conference on the day.

earthquake. (I didn't ;-). At first we had a good news; almost all the people were safe because they were in front of you! Around 150 people are not few; we cannot take group photo once (Figure 2)!

I hope you will see the real current Japan by yourself at the following events.

Forthcoming Events in Japan

ISAAC 2011 The 22nd International Symposium on Algorithms and Computation (ISAAC 2011) will be held in Yokohama, Japan, December 5-8, 2011. Important dates are:

- Submission: June 24, 2011.
- Notification of acceptance: August 22, 2011.
- Final version due: September 16, 2011.

The details can be found at <http://www.is.titech.ac.jp/isaac11/>.

SODA 2012 The ACM-SIAM Symposium on Discrete Algorithms (SODA 2012) will be held in Kyoto, Japan, January 17-19, 2012. The Workshop on Algorithm Engineering and Experiments (**ALENEX 12**) and the Workshop on Analytic Algorithmics and Combinatorics (**ANALCO 12**) will be held immediately preceding the conference, on January 16, at the same location. As far as I know, this is the first SODA held at outside of United States. Important dates are:

- Submission: July 5, 2011 for short abstract, and July 12, 2011 for full paper.

- Notification of acceptance: September 12, 2011.

The details can be found at <http://www.siam.org/meetings/da12/index.php>.

Appendix: Program of EATCS-JP/LA workshop on TCS (February 1 to 3, 2011)

Design and verification of dynamic reconfigurable embedded systems by dynamic real-time and hybrid CEGAR

M. Sakai, Y. Tanaka, S. Yamane (Kanazawa U.)

Model checking of subclass of PTCTL by probabilistic timed WiGAR

M. Takahashi, T. Shimizu, S. Yamane (Kanazawa U.)

Universality of reversible logic elements with 1-bit memory

K. Morita, T. Ogiro (Hiroshima U.), A. Alhazov (Academy of Sciences of Moldova), T. Tanizawa (Hiroshima U.)

Approximation Algorithms for Optimal Allocation Problems of Indivisible Goods with Quadratic Utility Functions

S. Suzuki, A. Shioura (Tohoku U.)

Optimal Tableaux Placement Problem

S. Anzai, J. Chun (Tohoku U.), M. Korman (U. Libre de Bruxelles), T. Tokuyama (Tohoku U.)

Approximation Algorithms for Data Association Problem Arising from Multi-target Tracking

N. Kamiyama, T. Matsui (Chuo U.)

Approximating the path-distance-width for k-cocomparability graphs

Y. Otachi (Tohoku U.), T. Saitoh (JST ERATO), K. Yamanaka (U. of Electro-Communications), S. Kijima (Kyushu U.), Y. Okamoto (JAIST), H. Ono (Kyusyu U.), Y. Uno (Osaka Prefecture U.), K. Yamazaki (Gunma U.)

UNO is hard, even for a single player

E. D. Demaine, M. L. Demaine (MIT), R. Uehara (JAIST), T. Uno (NII), Y. Uno (Osaka Prefecture U.)

Image Recognition And Retrieval By Using Distance Information

N. Kaothanthong, J. Chun, T. Tokuyama (Tohoku U.)

Pattern Formation Through Optimum Matching by Oblivious CORDA Robots

N. Fujinaga (Kyushu U.), H. Ono (Kyushu U.), S. Kijima, M. Yamashita (Kyushu U.)

Logarithmic time contribution of the run length in computing the longest common subsequence

Y. Sakai (Tohoku U.)

What polygons can we get by simple folds and one straight cut?

E. D. Demaine, M. L. Demaine, A. Hawksley (MIT), H. Ito (Kyoto U.), P.-R. Loh, S. Manber, O. Stephens (MIT)

Local Composition of Cellular Automata via Hit-or-Miss Transform

M. Fujio (Kyushu Institute of Technology)

Bubble sort with infinitely large bins

H. Ito, J. Teruyama, Y. Yoshida (Kyoto U.)

Suffix Array Constructing using Hadoop which is a Framework for Distributed Processing

- Y. Tanaka, S. Kijima (Kyushu U.), K. Sadakane (NII), M. Yamashita (Kyushu U.)*
- Fast Elliptic Curve Cryptography Using Optimal Double-Base Chain
V. Suppakitpaisarn (U. of Tokyo), M. Edahiro (U. of Tokyo), H. Imai (U. of Tokyo)
- Cancel minimal linear grammars with a particular nonterminal symbol
K. Fujioka (Kyushu U.), H. Katsuno (Tokyo Denki U.)
- Real-time sorting of binary numbers on one-dimensional CA
T. Worsch (KIT), H. Nishio (Kyoto U.)
- A Randomized Algorithm for Finding Frequent Items in Streams
M. Ogata, S. Kijima, M. Yamashita (Kyushu U.)
- Trevisan's extractor in the presence of quantum side information
A. De (U. of California), C. Portmann (Tokyo Institute of Technology), T. Vidick (U. of California), R. Renner (ETH Zurich)
- Efficient unrankings of combinations
T. Shimizu, T. Fukunaga, H. Nagamochi (Kyoto U.)
- Ridge Detection with the Steepest Descent Method
S. Koka, K. Nomaki (Nihon U.), K. Sugita (Tokai U.), K. Tsuchida (Toyo U.), T. Yaku (Nihon U.)
- A Graph Grammar for Package Diagrams of UML
T. Goto, T. Nishino (The U. of Electro-Communications), K. Tsuchida (Toyo U.)
- Palindrome Pattern Matching
T. I, S. Inenaga, M. Takeda (Kyushu U.)
- Finding the optimal strategy for a game tree with probabilistic rewards
Y. Okuyama, K. Hatano, E. Takimoto, M. Takeda (Kyushu U.)
- A screening method for molecular graphs utilizing tree automata
A. Fujiyoshi (Ibaraki U.)
- Indexed Grammar Compression for Searching Long Substrings
H. Sakamoto, N. Kishiue, M. Nakahara (Kyushu Institute of Technology), S. Maruyama (Kyushu U.)
- A self-index structure of compressed data based on grammar-based compression
M. Baba, S. Maruyama (Kyushu U.), H. Sakamoto (Kyushu Institute of Technology), K. Sadakane (NII), M. Yamashita (Kyushu U.)
- Experimental Consideration on the AKS Algorithm with Computers
Y. NANBA, S. JIMBO (Okayama U.)
- Approximating Maximum Edge 2-Coloring in Simple Graphs
Z.-Z. Chen, S. Konno, Y. Matsushita (Tokyo Denki U.)
- On polynomial-time solvability of the maximum clique problem
H. Nakanishi (U. of Electro-Communications), E. Tomita (U. of Electro-Communications/Chuo U.), M. Wakatsuki, T. Nishino (U. of Electro-Communications)
- Constructions for Weak Oblivious Transfer
A. Yamada, K. Yasunaga, K. Tanaka (Tokyo Institute of Technology)
- Algorithms for reticulate networks of multiple phylogenetic trees
Z.-Z. Chen (Tokyo Denki U.), L. Wang (City U. of Hong Kong)
- A Polynomial-Time Algorithm for Checking the Equivalence of Real-Time Deterministic Restricted One-Counter Transducers Which Accept by Final State

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M. Wakatsuki (U. of Electro-Communications), K. Seino (Toshiba Solutions Corporation), E. Tomita (U. of Electro-Communications/Chuo U.), T. Nishino (U. of Electro-Communications)

Protocol for agreement problem in short range on virtual world

S. Enomoto (Tokyo Denki U.)

Efficient Calculation of n -gram Frequencies on SLP Compressed Strings

K. Goto, H. Bannai, S. Inenaga, M. Takeda (Kyushu U.)

Faster Algorithms for Episode Pattern Matching on Compressed Texts

T. Yamamoto, H. Bannai, S. Inenaga, M. Takeda (Kyushu U.)

A duality theorem for cutwidth

A. Katahira, Y. Kuwabara, R. Nagasawa (Gunma U.), Y. Otachi (Tohoku U.), K. Yamazaki (Gunma U.)

Optimization Models for Constructing Pointillist Portrait

T. Oki (Chuo U.)

Degree sequence related to degree set

S. Osawa, Y. Shibata (Gunma U.)

Information transfer by organizing groups over sensor network

D. NAKAYAMA, N. SAKAMOTO (Tokyo Denki U.), K. IMAI (Hiroshima U.)

Path Enumeration by ZDD

J. Kawahara, T. Saitoh (JST ERATO), H. Suzuki, S.-i. Minato (Hokkaido U.), R. Yoshinaka (JST ERATO)

An image transformation algorithm for image compression based on quantum cellular automata

K. Oohata, T. Nishino, M. Wakatsuki (U. of Electro-Communications)

Edge-Developments of Platonic Solids Never Overlap

T. Horiyama, W. Shoji (Saitama U.)

THE JAPANESE CHAPTER

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