

Report on Japan-Korea Workshop on Algorithms and Computation(WAAC 2003) Sendai, Japan

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1 Introduction

I attended the 7th Japan-Korea Workshop on Algorithms and Computation(WAAC 2003), held in Sendai, Japan from 3 to 4 July 2003. This symposium was organised by Special Interest Group of Algorithm(SIGAL) of Information Processing Society of Japan, in cooperation with SIGTCS of Korean Information Society and SIGCOMP of the Institute of Electronics, Information and Communication Engineers. As the name of the symposium suggests, most of twenty six papers presented were authored by Japanese and Korean researchers. However there were some papers from other countries including Germany, Romania, Australia, and us, New Zealand.

Each day consisted of four and five sessions based on the field of research, my paper was scheduled to be presented at the fourth session on the first day.

2 Aim of Attendance

I presented my paper titled “Parallel approaches to the maximum subarray problem” based on MSc research. One of the pioneer of this research topic, Prof. Takeshi Tokuyama, happened to be the chair of the programme committee, which gave me good reason to expect that valuable feedback and advice would be collected from this symposium.

It was also hoped to expose myself to other prominent experts in their respective research area and current popular research trends and topics.

3 Presentation in WAAC2003

The papers presented in WAAC2003 covered very wide topics including networks, quantum algorithms, computer vision, cryptography, parallel algorithms, graph theories and combinatorial optimisation.

It was interesting to listen to the presentations of very practical minded research topics, such as algorithms for “better half-toning for a printer”, “transportation scheduling problem” and “hidden object detection for industrial application”. It seemed that the industry-academy link works well in these two major industrial countries in the Far East.

The audience were friendly, and gave warm reception, which was excellent atmosphere to students with little experience at an international conference.

4 Feedback and Comments

After my presentation, Some questions were asked. A difficult one was regarding the possibility of applying other all-pairs shortest paths algorithms to the maximum subarray problem. It was raised that a faster all-pairs shortest paths algorithm is known, which may lead to a superior result than the result I presented. I, unfortunately, was not ready to answer, but Prof. Takaoka answered that result is only applicable to integer inputs, and is not considered as a general solution. Prof. Tokuyama commented that it would be interesting to produce a prototype VLSI chip based on my research.

5 Workshop Banquet etc.

Banquet was held on July 3 in Hotel JAL City Sendai. Among other participants, Dr. Mitsuo Motoki and Mr. Taisuke Shimamoto at JAIST instantly became my friends. They guided me around Sendai and we had exotic Japanese cuisine, such as *raw ox tongue*. They joked using terminologies, and some concepts in algorithm I had only understood vaguely suddenly became clear thanks to their improvised jokes.

6 Conclusion

I found this symposium is an excellent starting point to an algorithm research student to participate. Reception was warm and the atmosphere was rather relaxed, and I was able to gain valuable experience and confidence.

Major universities in Japan and Korea seemed to manage a large research group in the field and work in collaboration with the industry. It gave me such an enlightenment to observe how difficult concepts such as NP-completeness were dealt with to solve problems for industrial applications.

Finally, I would like to express my gratitude to Department of Computer Science and Software Engineering for providing financial assistance to attend this conference. I would also like to thank Prof. Tadao Takaoka not only for his contribution for the paper presented but also for organising my visit to Japan.