Report on International Symposium on Parallel Architectures, Algorithms & Networks (I-SPAN 2004) Hong Kong

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1 Introduction

I attended the 7th International Symposium on Parallel Architectures, Algorithms & Networks (I-SPAN 2004) hosted in Hong Kong. This symposium was organised by the University of Hong Kong and the Hong Kong Polytechnic University and the proceedings were published by IEEE Computer Society. The hosting cities of this symposium rotate among the Asia/Pacific/US regions and paper submissions come from all over the world. This I-SPAN was originally scheduled to be held in Hong Kong in 2003, but was adjourned due to the SARS outbreak.

My paper was presented on the second day during the "Algorithms II" session.

2 Invited Talks

Each day started with invited talks. Some prominent researchers were invited, including Joseph JaJa (Uni of Maryland), Kevin McCurley (IBM) and Lionel Ni (Hong Kong University of Science and Technology). Among three speeches, I particularly found Ni's talk interesting. According to his study, the majority of Internet traffic is consumed by not WWW, FTP, but P2P. The heavy traffic of P2P is not only due to large size data upload/download activities, but also poor design/utilisation of parallel algorithms maintaining the directory of data currently available in the network. Updating this directory involves various types of one-to-all, all-to-one, and all-to-all communications, but the algorithms used by commercial P2P softwares (likes of eDonkey, Kazza etc) are so poorly designed and result in massively inefficient traffic overhead. His remarks on the importance of better performing parallel algorithms were very convincing.

3 Presentation

I gave a presentation on "Algorithms for the Problem of K Maximum Sums and a VLSI Algorithm for the K Maximum Subarrays Problem" on the second day of the conference. As the emphasis of conference placed on the parallel architecture and algorithm, I spent more time in explaining how we can achieve economical, yet efficient solution for the problem of K maximum sums by utilising systolic arrays. One audience suggested that it might be useful for clustering applications where maximum probability needs to be computed very quickly. Some positive feedback from Prof. Hal Sudborough, the programme committee chair, was a good encouragement too.

Attending other people's presentation, I noticed some simply claimed specific result without any formal proof or proper analysis. Occasionally I asked if the claimed result is proved or analysed as no such information could be found even in the proceedings. Such papers looked unconvincing, which gave me some idea how a good research paper should be written.

4 Banquet etc.

The banquet was in the evening of the first day at a luxurious buffet restaurant in HK Polytechnic University. This conference collected submissions from 35 countries and one person from each country was expected to make a speech. As I was the only one from New Zealand, (the only ethnic Korean too), I had to stand in front of crowd and speak something. I think I said that it was great excitement to physically meet people of international renown whom I had only been able to meet on the research paper. The rest of my speech, however, is no more resident in my volatile memory...(sigh)

We had the dinner on the second day at a Chinese seafood restaurant in a remote island. Simply superb.

5 Accommodation

While some hotels offered discounted rate for I-SPAN 2004, I wanted to find cheaper hotel. Long hours of Internet surfing before my departure made me discover BP International House, which is cheapest in Tsim Sa Tsui area and not too far from the conference site (HK Polytech). It was slightly disappointing as they were renovating the exterior of building and the noisy construction starts daily from early in the morning. It was merely 1 km walk to HK Polytech, but tropical Hong Kong weather made me sweat massively. Empire Hotel, where most I-SPAN people stayed turned out to be a five-star hotel while NZ$10 more expensive than BP International House. One good thing about BP International House is free Internet in the lounge. They only have two Internet capable PCs, but need not wait too long. It seemed hard to find an Internet cafe in Hong Kong (never seen any), but I heard some good

hotels offer Internet as a room service with considerable extra charge. Considering that, it was not a bad deal.

6   Conclusion

I-SPAN 2004 was an excellent conference. Some internationally acclaimed researchers were invited, and the host did marvelous job.

Since the emergence of Internet, we suddenly found ourselves hugely relying on the communication network. Attending this conference, I learned that the research community is now well aware of the importance of efficient parallel algorithms to overcome troubles in our ever increasing network. This conference not only provided me with an opportunity to publish my paper but also boosted my morale and made me contemplate the direction of my research.