Message from the Workshop Organizers

MPP

Writing parallel applications is not a trivial task, requiring a deeper knowledge about algorithms, operating and runtime systems, data placement, and efficient use of hardware. A bottleneck at any level can easily nullify the benefits of parallelism – thus posing a challenge to the scientific and industrial communities. The creation of models and alternatives to ease parallelism exploitation still requires a tremendous effort from programmers. The Data-Flow model provides a viable alternative to solve this problem. It handles concurrency in a natural way, while hiding memory and synchronization latencies, leading to simpler and more power efficient systems. Recent work has shown that Data-Flow based execution models can present better performance than conventional systems. Moreover, they provide more powerful, flexible and understandable parallel programming constructs. MPP 2014 - Special Edition on Data-Flow Programming Models and Machines - aims at bringing together researchers and practitioners interested in novel computational models based on the Data-Flow principles of execution as a way to extract parallelism from applications. Finally, we would like to thank Professor Arvind, MIT, Professor Michael Flynn, Stanford Univ/Maxeler, and Elias Mizan, AMD, for sharing our Data-Flow dream!

Cheers!

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