Message from the MPP 2017 Chairs

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. This task becomes even harder as different computation devices, such as General Purpose Graphic Processing Units (GPGPUs) and Field Programmable Gate Arrays (FPGAs), are employed to build heterogeneous systems. Moreover, recent trends in Fog and In-Situ computing add computing capabilities to network devices (such as NICs, switches and routers), storage devices or even memory. This requires that applications running on large systems and manipulating big datasets consider the tradeoff between moving data to a remote processing element to increase parallelism and performing computation locally to reduce communication costs. This makes computing systems even more heterogeneous, intensifying the need of novel programming models that should exploit concurrency in a natural way, while hiding memory and synchronization latencies, leading to simpler and more power efficient systems.

MPP 2017 - 6th Workshop on Parallel Programming Models - Special Edition on Fog/In-Situ Computing - aims at bringing together researchers and practitioners interested in novel computational models to extract parallelism from applications. In this edition, we have selected six high-quality papers, carefully reviewed by a very capable, heterogeneous program committee, with members from both industry and academia. Moreover, we were able to secure a special issue at the International Journal of Grid and Utility Computing, in cooperation with WAMCA. Authors of the best papers from both MPP and WAMCA will be invited to submit extended versions of their work to the special issue.

Finally, we would like to thank the entire community for submitting papers and attending the event, making our workshop a relevant forum for discussing such important topics.

Cheers!

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