Message from the HCW General Chair

Welcome to the 27th International Heterogeneity in Computing Workshop (HCW 2018). Heterogeneity is one of the most profound and challenging characteristics of today's computing environments. From the macro level, where networks of distributed computers, composed by diverse node architectures, are interconnected with potentially heterogeneous networks, to the micro level, where deeper memory hierarchies and various accelerator architectures are increasingly common, the impact of heterogeneity on all computing tasks is increasing rapidly. Traditional algorithms, programming environments and tools, designed for legacy homogeneous multiprocessors, will at best achieve a small fraction of the efficiency and the potential performance that we should expect from computing in modern and especially tomorrow's highly diversified and mixed environments. New ideas, innovative algorithms, and specialized programming environments and tools are needed to efficiently use these new and multifarious architectures. HCW attracts paper submissions from both the research and industry communities presenting novel ideas on theoretical and practical aspects of computing in heterogeneous computing environments.

This year's workshop continues to build on the successful association of HCW with IPDPS. Without the infrastructure support provided by IPDPS, HCW and the many other IPDPS workshops would be considerably more difficult to organize and would not have the synergistic benefits derived from co-location. It is a pleasure to acknowledge the success and efforts of the IPDPS and HCW organizing teams in this ongoing relationship.

Among the many people who have contributed to HCW 2018, several deserve special mention. In particular, I would like to thank Prof. Sudeep Pasricha, Colorado State University, who served as the HCW 2018 Program Chair. Sudeep did a great job in promoting the workshop, attracting high quality submissions, and establishing an exciting technical program. Prof. Behrooz Shirazi, the Steering Committee Chair, steered HCW confidently in its 27nd edition providing sound advice and guidance. Last but not least Prof. H. J. Siegel encouraged everyone to work hard on the organization of the workshop and secured its sponsorship by the U. S. Office of Naval Research.

I wish all the HCW authors, presenters, session chairs, and attendees a productive and enjoyable workshop in Vancouver, Canada.

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