HPC4BD 2017 Foreword

Processing large datasets for extracting information and knowledge has always been a fundamental problem. Today, this problem is further exacerbated, as the data a researcher or a company needs to cope with can be immense in terms of volume, distributed in terms of location, and unstructured in terms of format. Recent advances in computer hardware and storage technologies have allowed us to gather, store, and analyze such large-scale data. However, without scalable and cost effective algorithms that utilize the resources in an efficient way, neither the resources nor the data itself can serve to science and society at its full potential. Analyzing Big Data requires a vast amount of storage and computing resources.

We need to untangle the big, puzzling information we have and while doing this, we need to be fast and robust: the information we need may be crucial for a life-or-death situation. We need to be accurate: a single misleading information extracted from the data can cause an avalanche effect. Each problem has its own characteristic and priorities. Hence, the best algorithm and architecture combination is different for different applications. The HPC4BD workshop aims to bring people who work on data-intensive and HPC in industry, research labs, and academia together to share their problems posed by the Big Data in various application domains and knowledge required to solve them.

We thank all the authors for submitting their high-quality work to HPC4BD and their workshop presentations. We also thank to the program committee members, Sameh Abdullah (KAUST), Mehmet Deveci (Sandia National Laboratories), Tahsin Kurç (Stony Brook University), Siva Rajamanickam (Sandia National Laboratories), A. Erdem Sarıyüce (Sandia National Laboratories), Erik Saule (University of North Carolina Charlotte), Robert Soule (University of Lugano), Öğuz Kaya (ENS Lyon, INRIA), Mahantesh Halappanavar (Pacific Northwest National Laboratory), Hongyang Sun (Vanderbilt University), Ata Türk (Boston University), Bora Uçar (CNRS and LIP, ENS Lyon) . Their reviews helped a lot during the paper selection process. Last but not least, as the organizers, we thank to ICPP Workshop Chair Federico Silla (Universitat Politècnica de Valencia) for his help and making the organization easier for us.

Kamer Kaya, Sabanci University, Turkey
Buğra Gedik, Bilkent University, Turkey
Ümit V. Çatalyürek, Georgia Tech, USA

HPC4BD 2017 Organizers
HPC4BD 2017 Program Committee

Organizers
Kamer Kaya, Sabanci University, Turkey
Buğra Gedik, Bilkent University, Turkey
Ümit V. Çatalyürek, Georgia Tech, USA

Program Committee Members
Sameh Abdullah, KAUST, Saudi Arabia
Mehmet Deveci, Sandia National Laboratories, USA
Tahsin Kurç, Stony Brook University, USA
Siva Rajamanickam, Sandia National Laboratories, USA
A. Erdem Sarıyüce, Sandia National Laboratories, USA
Erik Saule, University of North Carolina Charlotte, USA
Robert Soule, University of Lugano, Switzerland
Oğuz Kaya, ENS Lyon, INRIA, France
Mahantesh Halappanavar, Pacific Northwest National Laboratory, USA
Hongyang Sun, Vanderbilt University, USA
Ata Türk, Boston University, USA
Bora Uçar, CNRS and LIP, ENS Lyon, France