CEBDA 2018

International Workshop on the Convergence of Extreme Scale Computing and Big Data Analysis

The deployment of extreme scale computing platforms in research and industry coupled with the proliferation of large and distributed digital data sources have the potential for unprecedented insights and understanding in all areas of science, engineering, business, and society in general. However, challenges related to the Big Data generated and processed by these systems remain a significant barrier in achieving this potential.

Addressing these challenges requires a seamless integration of the extreme scale/high performance computing, cloud computing, storage technologies, data management, energy efficiency, and big data analytics research approaches, framework/technologies, and communities. The convergence and integration of exascale systems and data analysis is crucial to the future. To achieve this goal, both communities need to collectively explore and embrace emerging disruptions in architecture and hardware technologies as well as new data- driven application areas such as those enabled by the Internet of Things. Finally, educational and workforce development structures have to evolved to develop the required integrated skillsets.

The goal of this workshop is to bring leading researchers from these communities together to jointly explore such integration, and to develop a research agenda towards brings the diverging research groups and technologies stack toward a more convergent path. The workshop provides a forum for scientists and engineers in academia and industry to present their latest research findings on major and emerging topics in this field. This year, the workshop program includes three regular papers on important and relevant aspects of the convergence and integration of exascale systems and data analysis. In addition to the regular paper presentations, we are extremely honored to have one keynote speech from Dr. Franck Cappello, Argonne National Laboratory, USA.

We are grateful to all program committee members for their great efforts in reading, reviewing, discussing, and finally selecting the papers. We also thank workshop Chairs of IPDPS 2018, Erik Saule and Jaroslaw Zola, for their help and support on the workshop organization.

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