

**CBDP - Workshop on Container-Based
Systems for Big Data, Distributed
and Parallel Computing**

Workshop on Container-Based Systems for Big Data, Distributed and Parallel Computing (CBDP)

Workshop Description

CBDP is a forum for researcher working on systemic aspects of Big data, Distributed and Parallel computing and that, today, are adopting container technologies. Nowadays, in Big data, distributed and parallel computing, there is a shift from a Virtual Machine centric to a Container centric model. Containers enable micro-service software architectures, containers are used to deploy and run enterprise, scientific and big data applications, to architect IoT and edge/fog computing systems, and are used by cloud providers to internally manage their infrastructure and services. The scientific objective of the workshop is to collect high quality contributions that: advance the state of the art of container technologies; propose new solutions for architecting high performance distributed and/or parallel container based systems; put forward resource management techniques like scaling and migration; enhance the state of the art in container security; show successful use of container technologies in fields like Big Data processing, Cloud Computing, Parallel computing, Distributed Computing and Internet of Things.

The 2018 edition of the CBDP workshop was held in Tourin, Italy in conjunction with the Euro-Par annual series of international conferences. The format of the workshop includes a keynote, followed by technical presentations.

This year, the keynote was about “Self-adaptation for Streaming Analytics at the Edge”. Data Stream Processing (DSP) systems are commonly used to process big data streams from sensors and devices and there is a need to push streaming analytics capabilities to the edges of the network in order to cut down the latency. This scenario requires to devise effective solutions to manage and self-adapt at run-time the execution of DSP applications in the presence of unforeseeable variations of demand in time and space. The talk addressed the related challenges and presented a two-layered hierarchical solution for the autonomous control of elastic DSP applications deployed in geo-distributed Cloud and Fog/edge environments.

The papers presented in this edition covered different aspect of big data and distributed computing, like: vertical scalability for big data applications, QoS-aware resource allocation, network function containerization, containerized databases and storage systems.

Last, but certainly not least, I would like to thanks Stefano Iannucci for co-chairing the workshop with me, the CBDP Steering Committee and the CBDP 2018 Program Committee, who made the workshop possible. I would also like to thank Euro-Par for

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Organization

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