Call for Papers

UCAA'12

1st International Workshop on Unconventional Cluster Architectures and Applications

September 10th 2012 - Pittsburgh, PA, USA

In conjunction with the 41st International Conference on Parallel Processing (ICPP 2012)

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IMPORTANT DATES

Paper submission: 1st May 2012
Notification of acceptance: 7th June 2012
Camera-ready paper: 27th June 2012

ADDITIONAL INFORMATION

For more information visit:
http://www.gap.upv.es/ucaa

or send email to:
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ABOUT THE WORKSHOP This workshop gears to gather recent work on unconventional cluster architectures and applications, which might have a big impact on future cluster architectures. This includes any cluster architecture that is not based on the usual commodity components and therefore makes use of some special hard- or software elements, or that is used for very special and unconventional applications. Examples include GPUs, MICs (Many Integrated Core) and FPGAs on the hardware side, and virtualization, in-memory storage and device-to-device communication on the software side. We are in particular encouraging work on disruptive approaches, which may show inferior performance today but can already point out their full performance potential. The broad scope of the workshop facilitates submissions on unconventional uses of hardware or software, gearing to gather ideas that are coming to life now and not limiting them except for their context: clusters.

We are seeking new proposals presented from a holistic perspective. In this regard, one of the aims of the workshop is anticipating the evolution of clusters. Instead of just presenting new work carried out in the traditional cluster areas usually addressed in other conferences and workshops, we are thinking on creating the right atmosphere for a discussion of opportunities in cluster computing. In this regard, contributions would not only be accepted according to their technical merits but also according to their contribution to this discussion.

TOPICS OF INTEREST Topics of interest include any unconventional cluster architecture or application. Examples include, but are not limited to:

- High-performance, data-intensive, and power-aware computing
- Application-specific clusters, datacenters, and high performance cloud architectures
- New industry and technology trends and their potential impact on one of the above
- Dedicated support for novel parallel programming paradigms like PGAS
- Software cluster-level virtualization for consolidation purposes
- Hardware techniques for disaggregation of resources
- Management techniques for large-scale systems
- New uses of GPUs, FPGAs, and other specialized hardware

PAPER SUBMISSION GUIDELINES Submissions may not exceed 8 pages (single spaced, 11pt font, 8½×11-inch pages) in PDF format including figures and references. We recommend a minimum of 6 pages. Submitted papers must be original work that has not appeared in and is not under consideration for another conference or journal. Work in progress is welcome, but first results should be made available as a proof of concept. Submissions only consisting of a proposal will be rejected. Visit http://www.gap.upv.es/ucaa for additional details about paper submission.

CLUSTER COMPUTING JOURNAL The authors of the best three papers from the workshop will be directly invited to submit an extended version for a special issue on the Springer Cluster Computing Journal (http://www.springer.com/journal/10586). From the rest of the papers presented in the workshop, selected ones will be invited to submit an extended version. These papers will undergo a shepherding process in order to provide the authors with guidance for improving their work. Shepherds will be selected from the program committee members, which will also ensure the quality of the new versions. Notice that this special issue will be open to other works not previously submitted to the workshop, although these new papers will compete with the shepherded ones, which will have higher priority for similar quality papers.