The Second International Workshop on
Accelerators and Hybrid Exascale Systems
AsHES 2012

Shanghai, China May 25th, 2012
Held in conjunction with
The 26th International Parallel and Distributed Processing Symposium (IPDPS 2012)

CALL FOR PAPERS

As we look beyond the petascale era, accelerators such as Graphics Processing Units (GPUs) and FPGAs, as well as upcoming integrated hybrid processing cores, are expected to play a preeminent role in architecting the largest systems in the world. While there is significant interest in these architectures, much of this interest is an artifact of the hype associated with them. This workshop focuses on understanding the implications of accelerators on the architectures and programming environments of future systems. It seeks to ground accelerator research through studies of application kernels or whole applications on such systems, as well as tools and libraries that improve the performance or productivity of applications trying to use these systems.

The goal of this workshop is to bring together researchers and practitioners who are involved in application studies for accelerators and other hybrid systems, to learn the opportunities and challenges in future design trends for HPC applications and systems.

TOPICS OF INTEREST

We are soliciting contributions in areas including but not limited to:

- Characterizing strategies for implementing and optimizing HPC applications for accelerators.
- Techniques for optimizing kernels for execution on GPUs and future hybrid platforms.
- Modeling of applications running on accelerators and hybrid HPC systems.
- Implication of workload characterization in hybrid design issues.
- Benchmarking and performance evaluation for accelerator units.
- Tools and techniques to assist application development for accelerators and hybrid processors.
- System software techniques to abstract application domain-specific functionalities for accelerators.

SUBMISSION PROCEDURE

Submitted manuscripts may not exceed 10 single-spaced double-column pages using 10-point size font on 8.5x11 inch pages (IEEE conference style), including figures, tables, and references. See the style templates for details.

Latex: http://www.ipdps.org/templates/IEEECS_CPS_LaTeX_Letter_2Col.zip
Word: http://www.ipdps.org/templates/IEEECS_CPS_8.5x11x2.zip

Submission site: https://www.easychair.org/account/signin.cgi?conf=ashes2012

Submissions will be judged based on relevance, significance, originality, correctness and clarity.

The best papers of AsHES 2012 will be included in a Special Issue on Applications for the Heterogeneous Computing Era of the International Journal of High Performance Computing Applications, edited by Pavan Balaji and Satoshi Matsuoka.

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IMPORTANT DATES

Submission deadline:	**Dec. 7th, 2011**
Author Notification:	Jan. 30th, 2012
Camera-ready deadline:	Feb. 19th, 2012

http://www.mcs.anl.gov/events/workshops/ashes/2012/