



SPECIAL ISSUE ON SCIENTIFIC COMPUTING WITH GPUS

CALL FOR PAPERS

Graphics processing units (GPUs) aren't just for graphics anymore. These high-performance *many-core* processors are used to accelerate a wide range of science and engineering applications, in many cases offering dramatically increased performance compared to CPUs. Computer architects also use them to build world's largest supercomputers. However, use of GPUs in scientific computing comes with an added risk: application porting efforts could be substantial and not every application benefits from GPU acceleration equally well.

Computing in Science & Engineering seeks articles for a May/June 2012 special issue focusing on the use of GPUs in science and engineering applications. Contributions covering all aspects of using GPUs for solving challenging computational science problems are welcome. Of special interest are articles presenting results of porting efforts of large-scale scientific applications on large-scale GPU-based high-performance computers.

Co-published by the IEEE Computer Society and the American Institute of Physics, *Computing in Science & Engineering* magazine features the latest computational science and engineering research in an accessible format along with departments covering news and analysis, CSE in education, and emerging technologies.

SUBMISSION INSTRUCTIONS

Authors are asked to submit high-quality original work that has neither appeared in, nor is under consideration by other journals. All submissions will be peer-reviewed following the standard journal practices. Manuscripts based on previously published conference papers must be extended substantially to include at least 50% of new material.

Manuscripts should be submitted via the IEEE Computer Society manuscript submission and review site (<https://mc.manuscriptcentral.com/cs-ieee>). Manuscripts should be written in the active voice and should be around 6,000 words long, including figures and tables, which count as 250 words each.

All questions about this special issue should be sent to the guest editor at the addresses below.

IMPORTANT DATES

Manuscript submission: August 21, 2011

Final papers due: January 20, 2012

Acceptance notification: December 19, 2011

Publication date: March 2012

Guest Editor

Volodymyr Kindratenko (kindrtnk@illinois.edu)

University of Illinois at Urbana-Champaign