

**2009 SYMPOSIUM ON  
APPLICATION  
ACCELERATORS IN HIGH  
PERFORMANCE COMPUTING  
(SAAHPC 2009)**

# Organizing Committees

## Organizing Committee

**Wen-mei Hwu**, *University of Illinois at Urbana-Champaign*, Chair

**Volodymyr Kindratenko**, *NCSA*, Technical Program Chair

**Craig Steffen**, *NCSA*, Organization Chair

**Trish Barker**, *NCSA*, Communications Chair

**Susan Vinson**, *NCSA*, Local Arrangements

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**Robert Eades**, *IBM*

**Alan George**, *University of Florida*

**David Kaeli**, *Northeastern University*

**Greg Newby**, *Arctic Region Supercomputing Center*

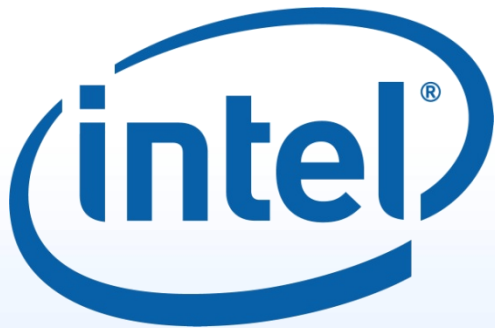
**Rob Pennington**, *NSF*

**Gregory Peterson**, *University of Tennessee*

**Michael Showerman**, *NCSA*

**Eric Stahlberg**, *OpenFPGA*

# Industry Sponsors



mitrionics

# Academic Sponsors



**Institute for Advanced Computing  
Applications and Technologies**



**NVIDIA®**

**CUDA Center of Excellence**

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**Hans Vandierendonck**, *University of Ghent*

**Zhiru Zhang**, *AutoESL*

**Huiyang Zhou**, *North Carolina State University*

# Technical Program Highlights

Keynote: Massive Data Computing

**Pradeep Dubey**

*Senior Principal Engineer for Massive Data  
Computing at Intel*

Keynote: Accelerating Past the Petascale

**Robert Harrison**

*Chemical Sciences Group leader, Oak Ridge  
National Laboratory*

# Technical Program Highlights

## Industry Presentations

**Brian Flachs**, *Senior Engineer*, IBM

**Allan Cante**, *President and Founder*, Nallatech

**Stefan Möhl**, *Co-Founder*, Mitrionics AB

**Nash Palaniswamy**, *Strategic Initiatives for Intel Corporation*, Intel

**Michael Garland**, *Research Scientist*, NVIDIA Research

# Technical Program Highlights

**21 research presentations**

**17 posters**

Heterogeneous Multiprocessing

Reconfigurable Computing

GPU Computing

Novel Architectures

(<http://www.saahpc.org>)

**Practical FPGA acceleration for Software Programmers: A tutorial  
on writing Mitrion-C for the Mitrion Virtual Processor**

**OpenFPGA Session**



# Symposium Schedule

## Tuesday, July 28

8:30 a.m. – 10:00 a.m. **Opening Session**

*Chair:* Wen-mei Hwu, UIUC

10:30 a.m. – 12:15 p.m. **Heterogeneous Multiprocessing**

*Chair:* Volodymyr Kindratenko, NCSA

1:30 p.m. – 3:00 p.m. **GPU Programming**

*Chair:* David Kaeli, Northeastern University

3:30 p.m. – 5:00 p.m. **Application Accelerator Technologies**

*Chair:* Craig Steffen, NCSA

5:30 p.m. – 8:00 p.m.

**Reception and Poster Session**

# Symposium Schedule

## Wednesday, July 29

8:30 a.m. – 10:00 a.m. **Keynote II**

*Chair:* Craig Steffen, NCSA

10:30 a.m. – 12:00 p.m. **GPU Computing**

*Chair:* Greg Newby, Arctic Region Supercomputing Center

1:00 p.m. – 3:00 p.m. **Reconfigurable Computing Applications**

*Chair:* Eric Stahlberg, Wittenberg University/OpenFPGA

3:30 p.m. – 5:00 p.m. **GPU Applications**

*Chair:* John Stone, University of Illinois

5:30 p.m. – 8:00 p.m. **OpenFPGA Session**

*Chair:* Eric Stahlberg, Wittenberg University/OpenFPGA

# Symposium Schedule

## Thursday, July 30

8:30 a.m. – 10:00 a.m. **GPU Applications**

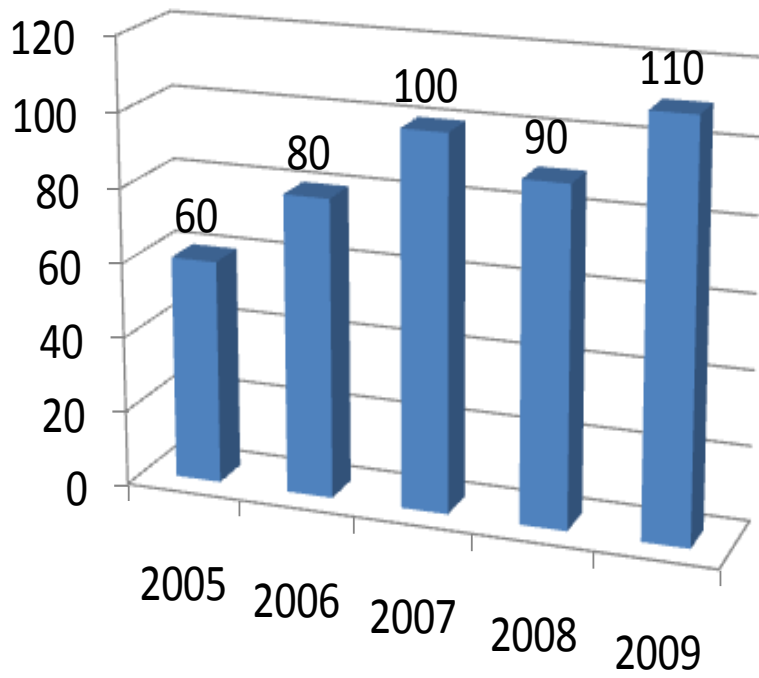
*Chair:* Gregory Peterson, University of Tennessee

10:30 a.m. – 12:00 p.m. **Novel Architectures**

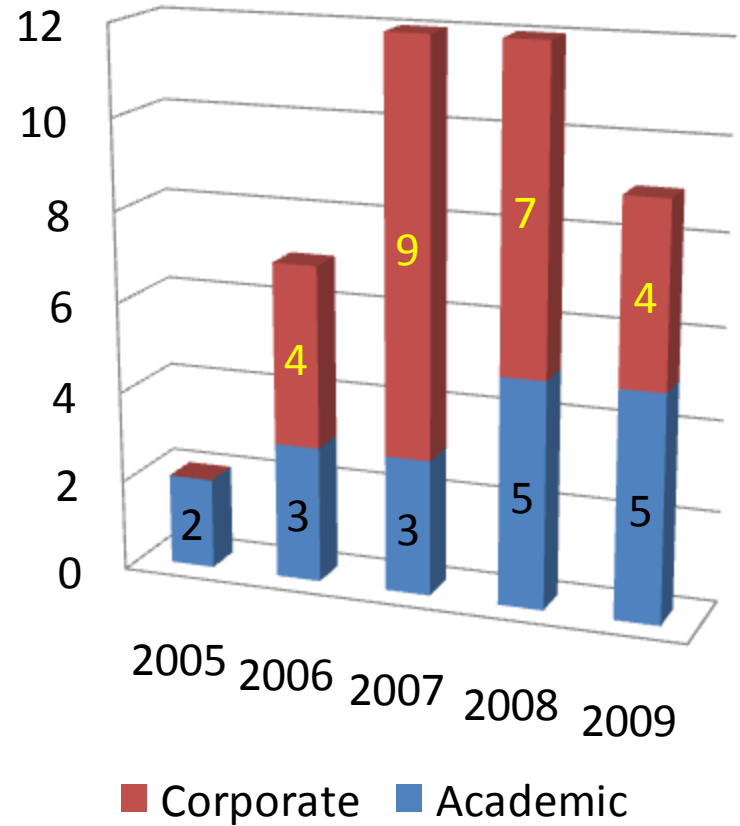
*Chair:* Volodymyr Kindratenko, NCSA

# Attendance

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## Sponsorship



# HPRCTA 2009

- **Third International Workshop on High-Performance Reconfigurable Computing Technology and Applications**
  - Architecture of HPRC devices and systems
  - Languages, compilation techniques, and tools
  - Libraries and run-time environments
  - Performance modeling/prediction and benchmarks
  - Algorithms, methodology, and best practices
  - Applications, trends and the latest developments
  - Standards and approaches for application portability
  - Validation and verification strategies
- *Held in conjunction with SC09  
November 15, 2009, Portland, Oregon*
- *Papers due: **September 1, 2009***

# IEEE TPDS

- Call for Papers: **IEEE Transactions on Parallel and Distributed Systems special issue on High-Performance Computing with Accelerators**
  - design, analysis, and implementation of novel accelerator processors, systems, and architectures
  - integration of accelerators with high-performance computing systems, performance measurement on
  - experimental systems, reliability and fault-tolerance
  - languages and compilers, profiling and debugging tools for accelerator-based computing
  - run-time environments, operating system support, scheduling and task partitioning for accelerator-based computing
  - programming models, analysis and design of algorithms for accelerator-based computing
- Submissions due: **September 24, 2009**

# **SAAHPC 2010**

## **July 13-15, 2010**

**University of Tennessee  
Knoxville Conference  
Center (downtown  
Knoxville)**

**Gregory Peterson**

**UTK EECS**

**Hosting & Co-Chair**

**(airport TYS)**

**(near ORNL)**

