



Heteropar 2014: Opening Words

Porto

Intoduction

Welcome to Porto.

Welcome to the 12th edition of Heteropar:

- 2013 - Aachen, Germany
- 2012 - Rhodes Island, Greece
- 2011 - Bordeaux, France
- 2010 - Ischia-Naples, Italy
- 2009 - Delft, The Netherlands
- 2007 - Austin, Texas, USA
- 2006 - Barcelona, Spain
- 2005 - Boston, Massachusetts, USA
- 2004 - Cork, Ireland
- 2003 - Czestochowa, Poland
- 2001 - Las Vegas, Nevada, USA

Heterogeneity is everywhere

We have switched from heterogeneous Now to on-the-shelf, heterogeneous hardware:

- GPUs
- Multi/Many-core processors
- Special processors (MIC),
- etc.

Exciting program

28 submissions, 10 accepted (35.7%).

Several topics:

- GPUs,
- Algorithms,
- Data structures,
- Tools,
- Etc.

One Keynote: **Radu Prodan**, University of Innsbruck
*Massively Multiplayer Online Gaming on Heterogeneous
Parallel Platforms*

Full Program

Session 1

10.00-10.30 Farouk Mansouri, Sylvain Huet and Dominique Houzet

A visual programming model to implement coarse-grained DSP applications on parallel and heterogeneous clusters

Session 2

11.00-11.30 Guojing Cong

Fast parallel connected components algorithms on GPUs

11.30-12.00 Souley Madougou, Ana Varbanescu, Cees de Laat and Rob van Nieuwpoort

An Empirical Evaluation of GPGPU Performance Model

12.00-12.30 Fabio Soldado, Fernando Alexandre and Hervé Paulino

Towards the Transparent Execution of Compound OpenCL Computations in Multi-CPU/Multi-GPU Environments &

Session 3

14.30-15.00 Ivan Walulya, Yiannis Nikolakopoulos, Marina Papatriantafilou and Philippas Tsigas

Concurrent Data Structures in Architectures with Limited Shared Memory Support

15.00-15.30 Ashley Deflumere and Alexey Lastovetsky

Optimal Data Partitioning Shape for Matrix Multiplication on Three Fully Connected Heterogeneous Processor

15.30-16.00 Frank Feinbube, Lena Herscheid, Christoph Neijenhuis and Peter Tröger

Scalable SIFT for NUMA Systems

Session 4

16.30-17.00 Gloria Ortega, Julia Lobera, Inmaculada Garcia, María Del Pilar Arroyo and Gracia Ester Martin

Non-linear iterative optimization method for locating particles using HPC techniques

17.00-17.30 Tomás Ferreirinha, Rúben Nunes, Amílcar Soares, Frederico Pratas, Pedro Tomás

GPU Accelerated Stochastic Inversion of Deep Water Seismic Data

17.30-18.00 Norihisa Fujita, Hisafumi Fujii, Toshihiro Hanawa, Yuetsu Kodama, Taisuke Boku, Yoshinobu

Kuramashi and M Clark

QCD Library for GPU Cluster with Proprietary Interconnect for GPU Direct Communication

Workshop proceedings

Submission of camera-ready papers:

October 3, 2014

Special Issue

Selected papers among the ones accepted and presented at HeteroPar'2014 will be published, after further revisions, in a special issue of the journal **Concurrency and Computation: Practice and Experience**.

Thanks

Have a wonderful workshop, a nice and productive stay in Porto.

Send me your presentation to: emmanuel.jeannot@inria.fr