

Krakow, september 7, 2015

Third Workshop on Models, Algorithms and Methodologies for Hybrid Parallelism in new HPC Systems

http://www.dma.unina.it/mamhyp/

Chairs: Giuliano Laccetti and Marco Lapegna

- Hybrid and hierarchical based parallel algorithms
- Performance and scalability models
- Synchronization and access to shared resources
- HPC and Internet of Things

...

•

A special issue of *International J. of Parallel Programming* will be devoted to the publication of extended and/or modified (30% al least!) versions of papers presented here, as well as papers submitted ex-novo, through an usual Call for Papers

Session Organizers

- Giuliano Laccetti (Univ. of Naples Federico II and INFN) giuliano.laccetti@unina.it
- Marco Lapegna (Univ. of Naples Federico II and INFN) marco.lapegna@unina.it
- Raffaele Montella (Univ. of Naples Parthenope and Univ. of Chicago)
 raffaele.montella@uniparthenope.it

Scientific Program Committee

- Alfredo Buttari, CNRS (National Center for Scientific Research), France
- Jack Dongarra, University of Tennessee and Oak Ridge National Laboratory, USA
- Ian Foster, Argonne National Lab, USA, and University of Chicago, USA
- Florin Isaila, University Carlos III, Madrid, Spain
- Giuliano Laccetti, University of Naples Federico II, Italy, and INFN (Nuclear Physics National Institute), Italy
- Marco Lapegna, University of Naples Federico II, Italy, and INFN (Nuclear Physics National Institute), Italy
- Paul Messina, Argonne National Laboratory, USA
- Raffaele Montella, University of Naples Parthenope, Italy, and University of Chicago, USA
- Almerico Murli, CMCC (Euro-Mediterranean Center for Climate Change), and SPACI (Southern Partnership for Advanced Computational Infrastructures), Italy
- Guido Russo, University of Naples Federico II, Italy, and INFN (Nuclear Physics National Institute), Italy

A special thank to the PPAM 2015 Organizing and Scientific Committee, in particular to their chair, Prof. Roman Wyrzykowski, a distinguished and very important scientist and professor, and a friend, to allow us to organize, again, an edition (the thirdone) of such a workshop about these so much important and «evergreen» topics.

Scientific Program

- Virtualizing CUDA enabled GPGPUs on ARM clusters
 R. Montella, G. Giunta, G. Laccetti, M. Lapegna, C. Palmieri, C. Ferraro and V. Pelliccia, Naples, Italy
- A Distributed Hash Table for Shared Memory
 W. Oortwijn, T. van Dijk and J. van de Pol, Un. of Twente, Enschede, The Netherlands
- Mathematical Approach to the Performance Evaluation of Matrix-matrix Multiply Algorithm on a Two Level Parallel Architecture

L. D'Amore, V. Mele, G. Laccetti and A. Murli ,Naples, Italy

How to mitigate node failures in hybrid parallel applications

M. Szpindler, Warsaw, Poland

POSTER SESSION (Tuesday, september 8)

 A scalable numerical algorithm for solving Tikhonov regularization problems in a large scale application L. D'Amore, G. Laccetti, V. Mele, A. Murli, Naples, Italy