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# MARCELLO PIVANTI

## Elenco Pubblicazioni

H. Baier, H. Boettiger, M. Drochner, N. Eicker, U. Fischer, Z. Fodor, G. Goldrian, S. Heybrock, D. Hierl, T. Huth, B. Krill, J. Lauritsen, T. Lippert, T. Maurer, J. McFadden, N. Meyer, A. Nobile, I. Ouda, M. Pivanti, D. Pleiter, A. Schäfer, H. Schick, F. Schifano, H. Simma, S. Solbrig, T. Streuer, K.-H. Sulanke, R. Tripiccone, T. Wettig, F. Winter

**"Status of the QPACE project",**

Proceedings of Science (LATTICE 2008) 039, Hep-Lat Oct 2008, pp.1-7, arXiv:0810.1559

H. Baier, H. Boettiger, M. Drochner, N. Eicker, U. Fischer, Z. Fodor, A. Frommer, C. Gomez, G. Goldrian, S. Heybrock, D. Hierl, M. Hüskens, T. Huth, B. Krill, J. Lauritsen, T. Lippert, T. Maurer, N. Meyer, A. Nobile, I. Ouda, M. Pivanti, D. Pleiter, A. Schäfer, H. Schick, F. Schifano, H. Simma, S. Solbrig, T. Streuer, K.-H. Sulanke, R. Tripiccone, J.-S. Vogt, T. Wettig, F. Winter,

**"QPACE -- A QCD parallel computer based on cell processors",**

Proceedings of Science (LATTICE2009) 001, Hep-Lat Nov 2009, arXiv:0911.2174

L. Biferale, F. Mantovani, M. Pivanti, M. Sbragaglia, A. Scagliarini, S. F. Schifano, F. Toschi, R. Tripiccone

**"Lattice-Boltzman fluid-dynamics on the QPACE supercomputer",**

Proceedings of the Intl. Conference on Computational Science, ICCS2010

Procedia Computer Science Vol. 1, Issue 1 (2010), pp. 1069-1076.

Baier H., Boettiger H., Drochner M., Eicker N., Fischer U., Fodor Z., Frommer A., Gomez C., Goldrian G., Heybrock S., Hierl D., Huesken M., Huth T., Krill B., Lauritsen J., Lippert T., Maurer T., Mendl B., Meyer N., Nobile A., Ouda I., Pivanti M., Pleiter D., Ries M., Schafer A., Schick H., Schifano F., Simma H., Solbrig S., Streuer T., Sulanke K.-H., Tripiccone R., Vogt J.-S., Wettig T., Winter F.,

**"QPACE: power-efficient parallel architecture based on IBM PowerXCell 8i",**

Computer Science - Research and Development, 25, issue 3-4 (2010), pp. 149-154, Springer, Heidelberg

L. Biferale, F. Mantovani, M. Pivanti, F. Pozzati, M. Sbragaglia, A. Scagliarini, S. F. Schifano, F. Toschi and R. Tripiccone,

**"Optimization of Multi-Phase Compressible Lattice Boltzmann Codes on Massively Parallel Multi-Core Systems"**

In Elsevier (ed.): Procedia Computer Science, Vol. 4 (2011), pp. 994-1003

Proceedings of the International Conference on Computational Science, ICCS 2011

(M. Sato, S. Matsuoka, P. M. Slood, G.D. van Albada and J. Dongarra editors)

Marcello Pivanti, Sebastiano Fabio Schifano, Hubert Simma

**"An FPGA-based Torus Communication Network",**

Proceedings of Science (LATTICE2010) 038, Hep-Lat Feb 2011, arXiv:1102.2346

L. Biferale, F. Mantovani, M. Pivanti, F. Pozzati, M. Sbragaglia, A. Scagliarini, F. Schifano, F. Toschi, R. Tripiccone,

**"Lattice Boltzmann Methods Simulations on Massively Parallel Multi-core Architectures"**

Proceedings of the 2011 Spring Simulation Multiconference, High Performance Computing Symposium 2011 (HPC 2011) (L. T. Watson, G. Howell,

W. I. Thacker, S. Seidel eds.) Society for Modeling and Simulation International (2011), pp. 73-80.

M. Baity-Jesi, R. A. Banos, A. Cruz, L. A. Fernandez, J. M. Gil-Narvion, A. Gordillo-Guerrero, M. Guidetti, D. Iniguez, A. Maiorano, F. Mantovani, E. Marinari, V. Martin-Mayor, J. Monforte-Garcia, A. Munoz Sudupe, D. Navarro, G. Parisi, M. Pivanti, S. Perez-Gaviro, F. Ricci-Tersenghi, J. J. Ruiz-Lorenzo, S. F. Schifano, B. Seoane, A. Tarancon, P. Tellez, R. Tripiccone and D. Yllanes,

**"Reconfigurable computing for Monte Carlo simulations: results and prospects of the Janus project",**

The European Physical Journal. Special Topics (ISSN:1951-6401), Vol. 210, pp. 33-51

M. Guidetti, A. Maiorano, F. Mantovani, M. Pivanti, S. F. Schifano, R. Tripiccone,

**"Monte Carlo Simulations of Spin Systems on Multi-core Processors",**

In: Jonasson, K. (ed.): PARA 2010, Part I, LNCS 7133, pp. 220-230, Springer, Heidelberg (2012).

M. Baity-Jesi, R. A. Banos, A. Cruz, L. A. Fernandez, J. M. Gil-Narvion, A. Gordillo-Guerrero, M. Guidetti, D. Iniguez, A. Maiorano, F. Mantovani, E. Marinari, V. Martin-Mayor, J. Monforte-Garcia, A. Munoz Sudupe, D. Navarro, G. Parisi, M. Pivanti, S. Perez-Gaviro, F. Ricci-Tersenghi, J. J. Ruiz-Lorenzo, S. F. Schifano, B. Seoane, A. Tarancon, P. Tellez, R. Tripiccone and D. Yllanes,

**"Janus2: an FPGA-based supercomputer for spin glass simulations",**

In: S. Bassini, A. Hoise, D. J. Kerbison, D. Pleiter, S. F. Schifano, , Proceedings of the Future HPC Systems: the Challenge of Power-Constrained Performance, pp. 2.1-2.11

L. Biferale, F. Mantovani, M. Pivanti, F. Pozzati, M. Sbragaglia, A. Scagliarini, S. F. Schifano, F. Toschi and R. Tripiccone,

**"A multi-GPU implementation of a D2Q37 Lattice Boltzmann Code"**

In: R. Wyrzykowski (ed.): Parallel Processing and Applied Mathematics 2011, Vol. 1, LNCS 7203, pp. 640-650, Springer, Heidelberg (2012).

M. Baity-Jesi, R. A. Banos, A. Cruz, L. A. Fernandez, J. M. Gil-Narvion, A. Gordillo-Guerrero, M. Guidetti, D. Iniguez, A. Maiorano, F. Mantovani, E. Marinari, V. Martin-Mayor, J. Monforte-Garcia, A. Munoz Sudupe, D. Navarro, G. Parisi, M. Pivanti, S. Perez-Gaviro, F. Ricci-Tersenghi, J. J. Ruiz-Lorenzo, S. F. Schifano, B. Seoane, A. Tarancon, P. Tellez, R. Tripiccone and D. Yllanes,

**"An FPGA-based supercomputer for statistical physics: the weird case of Janus",**

High-Performance Computing using FPGAs. Vanderbauwhede, Wim; Benkrid, Khaled, United Kingdom of Great Britain, in press.

L. Biferale, F. Mantovani, M. Pivanti, F. Pozzati, M. Sbragaglia, A. Scagliarini, S.F. Schifano, F. Toschi, R. Tripiccone,  
``**Second order closure for stratified convection: bulk region and overshooting**`,  
Journal of Physics: Conference Series, Vol. 318, Section 9, art. no. 042018 (2011)  
proceedings of the European Turbulence Conference (ETC13).

A. Scagliarini, L. Biferale, F. Mantovani, M. Pivanti, F. Pozzati, M. Sbragaglia, S. F. Schifano, F. Toschi, R. Tripiccone,  
``**Front propagation in Rayleigh-Taylor systems with reaction**`,  
Journal of Physics:Conference Series, Vol. 318, Section 9, art. no. 092024  
proceedings of the European Turbulence Conference (ETC13.)

A. Bertazzo, F. Mantovani, M. Pivanti, F. Pozzati, S. F. Schifano, R. Tripiccone,  
``**Implementation and Optimization of a Thermal Lattice Boltzmann Algorithm on a multi-GPU cluster**``,  
Proceedings of the Innovative Parallel Computing (INPAR) 2012 Conference, in press.

M. Baity-Jesi, R. A. Banos, A. Cruz, L. A. Fernandez, J. M. Gil-Narvion, A. Gordillo-Guerrero, M. Guidetti, D. Iniguez, A. Maiorano, F. Mantovani,  
E. Marinari, V. Martin-Mayor, J. Monforte-Garcia, A. Munoz Sudupe, D. Navarro, G. Parisi, M. Pivanti, S. Perez-Gavero, F. Ricci-Tersenghi, J. J.  
Ruiz-Lorenzo, S. F. Schifano, B. Seoane, A. Tarancon, P. Tellez, R. Tripiccone and D. Yllanes,  
``**Spin glass simulations on the Janus architecture: a desperate quest for strong scaling**``,  
High-Performance Computing using FPGAs. Vanderbauwhede, Wim; Benkrid, Khaled, United Kingdom of Great Britain, in press.

L. Biferale, F. Mantovani, M. Pivanti, F. Pozzati, M. Sbragaglia, A. Scagliarini, S. F. Schifano, F. Toschi and R. Tripiccone,  
``**An Optimized D2Q37 Lattice Boltzmann Code on GP-GPUs**``,  
Computers & Fluids, in press

H. Baier, S. Heybrock, F. Mantovani, T. Maurer, N. Meyer, I. Ouda, M. Pivanti, D. Pleiter, S. F. Schifano, H. Simma,  
``**High-speed torus interconnect on FPGAs**``,  
High-Performance Computing using FPGAs. Vanderbauwhede, Wim; Benkrid, Khaled, United Kingdom of Great Britain, in press.

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