

Curriculum vitae

Name:

Dr. JAVIER NAVARIDAS PALMA

Date:

June 27th, 2011

PERSONAL DETAILS

SURNAME: Navaridas Palma
NAME: Javier
ADDRESS: C/ Jacinto Benavente 14, 9°C
Vitoria (Álava) Spain
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EDUCATION

DEGREE	INSTITUTION	DATE
MS in Computer Science	The University of the Basque Country	Jun. 28, 2005
Master thesis: "Simulation of a message router for parallel systems". (In Spanish)		

GRADUATE STUDIES	INSTITUTION	DATE
PhD in Computer Science	The University of the Basque Country.	Nov. 13, 2009
PhD dissertation: "Performance Evaluation of Interconnection Networks using Simulation: Tools and Case Studies". ADVISOR: Prof. José Miguel-Alonso		

ACADEMIC POSITIONS

POSITION	INSTITUTION	DATE
Pre-Doctoral Grant	The University of the Basque Country	Oct. 2005-Sep. 2007
Research Assistant	The University of the Basque Country	Oct. 2007-Sep. 2009
Research Assistant	The University of Manchester	Oct. 2009-Nov. 2009
Postdoctoral Grant	The University of the Basque Country	Jan. 2010-Dec. 2010
Newton Fellow	The University of Manchester	Jan. 2011-Dec. 2012

PARTICIPATION IN RESEARCH PROJECTS

FUNDING SCHEME (CODE)	DATES
Spanish Ministry of Education and Science (TIN2007-68023-C02-02)	Oct. 2007-Sep. 2010
Spanish Ministry of Education and Science (TIN2010-14931)	Oct. 2010-Sep. 2013

PUBLICATIONS

INTERNATIONAL JOURNALS

- AD Rast, J Navaridas, X Jin, F Galluppi, LA Plana, J Miguel-Alonso, C Patterson, M Luján, S Furber. "Managing Burstiness and Scalability in Event-Driven Models on the SpiNNaker Neuromimetic System" *International Journal of Parallel Programming*. Accepted for publication.
- MM Khan, AD Rast, J Navaridas, X Jin, LA Plana, M Lujan, S Temple, C Patterson, D Richards, JV Woods, J Miguel-Alonso, SB Furber. "Event-driven configuration of a neural network CMP system over an homogeneous interconnect fabric". *Parallel Computing*, In Press, Corrected Proof, Available online 3 March 2011, ISSN 0167-8191, DOI: 10.1016/j.parco.2011.02.003.
- J Navaridas, J Miguel-Alonso. "Indirect Cube Topologies for Improving the Efficiency of Small- and Medium-Scale Clusters". *Elsevier's Journal on Optical Switching and Networking*. Special Issue on Green Communications and Networking. Accepted for publication.
- J Navaridas, J Miguel-Alonso, JA Pascual and FJ Ridruejo. "Simulating and Evaluating Interconnection Networks with INSEE". *Elsevier's Simulation Modelling Practice and Theory*. Volume 19, Issue 1 (Jan. 2011), pp. 494-515. DOI: 10.1016/j.simpat.2010.08.008
- J Navaridas, J Miguel-Alonso, FJ Ridruejo, W Denzel. "Reducing Complexity in Tree-like Computer Interconnection Networks". *Parallel Computing*. Volume 36, Issue 2-3 (Feb. 2010), pp. 71-85. DOI: 10.1016/j.parco.2009.12.004
- JM Camara, M Moretó, E Vallejo, R Bevide, J Miguel, C Martínez, J Navaridas. "Twisted Torus Topologies for Enhanced Interconnection Networks". Accepted for publication in the *IEEE Transactions on Parallel and Distributed Systems*. In Press.
- J Miguel-Alonso, J Navaridas, FJ Ridruejo. "Interconnection network simulation using traces of MPI applications". *International Journal of Parallel Programming*. Volume 37, Issue 2 (Oct. 2009), pp. 153-174. DOI 10.1007/s10766-008-0089-y.
- JA Pascual, J Navaridas, J Miguel-Alonso. "Effects of Topology-Aware Allocation Policies on Scheduling Performance". *Job Scheduling Strategies for Parallel Processing*. Lecture Notes in Computer Science Series. Volume 5798 (Oct. 2009), pp. 138-156. Springer Berlin / Heidelberg. DOI: 10.1007/978-3-642-04633-9_8
- FJ Ridruejo, J Miguel-Alonso, J Navaridas. "Full-System Simulation of Distributed Memory Multicomputers". *International Journal on Cluster Computing*. Volume 12, Issue 3 (Sept. 2009), pp. 309-322. DOI: 10.1007/s10586-009-0086-y
- J Navaridas, J Miguel-Alonso, JA Pascual and FJ Ridruejo. "Simulating and Evaluating Interconnection Networks with INSEE". *Elsevier's Simulation Modelling Practice and Theory*. Published on-line. DOI: 10.1016/j.simpat.2010.08.008

INTERNATIONAL CONFERENCES

- J Navaridas, LA Plana, J Miguel-Alonso, M Luján, S Furber. "SpiNNaker: Impact of Traffic Locality, Causality and Burstiness on the Performance of the Interconnection Network". *Proceedings of the International Conference on Computing Frontiers (CF'10)*, May 17 to 19, 2010, Bertinoro, Italy.
- J Navaridas, M Luján, J Miguel-Alonso, LA Plana, SB Furber. "Understanding the Interconnection Network of SpiNNaker". *Proceedings of the 23rd International Conference on Supercomputing (ICS'09)*, June 8 to 12, 2009, York Town Heights, New York, USA.
- MM Khan, J Navaridas, AD Rast, X Jin, LA Plana, M Luján, JV Woods, J Miguel-Alonso, SB Furber. "Event-Driven Configuration of a Neural Network CMP System over a Homogeneous Interconnect Fabric". *8th International Symposium on Parallel and Distributed Computing*. June 30 to July 4 2009. Lisbon, Portugal.
- J Navaridas, J Miguel-Alonso. "Realistic Evaluation of Interconnection Networks Using Synthetic Traffic". *8th International Symposium on Parallel and Distributed Computing*. June 30 to July 4 2009. Lisbon, Portugal.
- JA Pascual, J Navaridas, J Miguel-Alonso. "Effects of Topology-Aware Allocation Policies on Scheduling Performance". *14th Workshop on Job Scheduling Strategies for Parallel Processing*. May 29, 2009. Rome, Italy.
- J Navaridas, JA Pascual, J Miguel-Alonso. "Effects of Job and Task Placement on the Performance of Parallel Scientific Applications". *Proceedings of the 17th Euromicro International Conference on Parallel, Distributed, and Network-Based Processing (PDP'09)*. February 18 to 20, 2009. Weimar, Germany.
- J Navaridas, J Miguel-Alonso, FJ Ridruejo. "On synthesizing workloads emulating MPI applications". *The 9th IEEE International Workshop on Parallel and Distributed Scientific and Engineering Computing (PDSEC-08)*. April 14 to 18, 2008, Miami, Florida, USA.
- FJ Ridruejo, J Navaridas, J Miguel-Alonso, C Izu, "Realistic Evaluation of Interconnection Network Performance at High Loads", *8th International Conference on Parallel and Distributed Computing Applications and Technologies (PDCAT'07)*. December 3 to 6, 2007. Adelaide, Australia.
- FJ Ridruejo, J Miguel-Alonso, J Navaridas. "Concepts and Components of Full-System Simulation of Distributed Memory Parallel Computers". *Proceedings of the 16th IEEE International Symposium on High Performance Distributed Computing (HPDC'07)*. June 25 to 29, 2007. Monterey, CA, USA.
- J Navaridas, FJ Ridruejo, J Miguel-Alonso. "Evaluation of Interconnection Networks Using Full-System Simulators: Lessons Learned". *Proceedings of the 40th Annual Simulation Symposium (ANSS'07)*. March 26 to 28, 2007. Norfolk, VA, USA.
- JM Camara, M Moreto, E Vallejo, R Bevide, J Miguel-Alonso, C Martinez, J Navaridas. "Mixed-radix Twisted Torus Interconnection Networks". *Proceedings of the 21st IEEE International Parallel & Distributed Processing Symposium (IPDPS'07)*. March 26 to 30, 2007. Long Beach, CA, USA.

RESEARCH STAYS

Visiting Student at IBM Zürich Research Laboratory from November 2006 to February 2007 under the supervision of Dr. Wolfgang Denzel in the Interconnect Fabrics group led by Ronald P. Luitjen.

Honorary Visiting Research Assistant at the University of Manchester, from February 2008 to May 2008, under the supervision of Dr. Mikel Lujan in the Advanced Processor Technologies group, working in the SpiNNaker project led by Prof. Steve Furber.

Research stay at the Advanced Processor Technologies group of the University of Manchester funded by a HiPEAC Collaboration Grant, from October 2010 to December 2010.

HIGH PERFORMANCE SYSTEMS USER

KEYS: C = in Charge, R = Regular User, O = Occasional User

SYSTEM	DATE	KEY
ISG Clusters (at the UPV/EHU)	since 2005	C
ATC Department Cluster (at the UPV/EHU)	since 2005	C
MareNostrum (Barcelona Supercomputing Centre)	since 2006	R
I2Bask Computing Resources	since 2007	R

OTHER MERITS

- Holder of a Pre-doctoral Grant financed by *Vicerrectorado de Investigación* of the University of the Basque Country (call 2004, main researcher: José Miguel-Alonso).
 - Holder of a Post-doctoral Grant financed by *Unidad de Estudios de Posgrado y Formación Continua* of the University of the Basque Country (call Dec 2009).
 - Granted with a Newton International Fellowship of the Royal Society (years 2011-12).
 - Automated synthesis of networks-on-chip for globally-asynchronous locally-synchronous systems-on-chip.
 - Main developer of the INSEE simulation environment.
 - Attending to the “How to write scientific articles in English” workshop, 9-11 September 2008, given by Dr. Ed Hull
 - Attending to the “Performance Evaluation of Communication Networks” seminar, June 2009, given by Dr. Nelson Saldanha da Fonseca
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