

Part A. PERSONAL INFORMATION

CV date 13/08/2019

First and Family name	Luis Piñuel		
ID number	5031457X	Age	45
Researcher numbers	Researcher ID	P-4646-2017	
	Orcid code	0000-0002-3049-828X	

A.1. Current position

Name of University/Institution	Universidad Complutense de Madrid		
Department	Arquitectura de Computadores y Automática		
Address and Country	Plaza de las Ciencias 1, Ciudad Universitaria, Spain		
Phone number	913944625	E-mail	lpinuel@ucm.es
Current position	Associate Professor	From	2/2/2006
Espec. cód. UNESCO	330406		
Palabras clave	Computer Architecture, Embedded Systems, High Performance Computing, Code Optimization		

A.2. Education

PhD	University	Year
Computer Science	Complutense de Madrid	2003

A.3. JCR articles, h Index, thesis supervised...

CNEAI research period positively evaluated (sexenio): 4 (last year evaluated 2017)

Thesis supervised: 5

JCR articles: 20

Cites: 794

h-Index: 16

Source: Google Scholar

Part B. CV SUMMARY (max. 3500 characters, including spaces)

I graduated from Complutense University of Madrid (UCM) with my M.Sc. and Ph.D. in computer science in 1996 and 2003, and I was awarded with the Extraordinary Doctorate Prize for the research done during that period. I am now an Associate Professor in the Department of Computer Architecture and Systems Engineering at the same university where I am the Head of the Departmental Section of the Physics Faculty and I am affiliated to ArTeCS research group since 1997. Before, I was a research assistant at the Acoustic Institute of the Spanish National Research Council (CSIC). From 2010 to 2015 I also occupied an administrative position as Registrar and Secretary of the Physics Faculty.

I have supervised 5 thesis and I have published more than 70 scientific papers, 30 of them are journals articles, of which 20 are in JCR-indexed journals (e.g. IEEE Transactions on Computers, IEEE Transaction on Parallel & Distributed Systems, IEEE Micro and IEEE Design & Test). I have reviewed for several relevant Conferences and Journals (e.g. IEEE Transactions on Computers, MICRO, CODES+ISSS, DATE, ICCAD, Europar) and I participated in several Conference Organizing Committees (e.g. HPCA, ISSS, Europar).

I have participated in 9 projects funded by the Spanish Government within the calls of the Spanish National Plan for Scientific and Technical Research and Innovation, 2 of them as co-principal investigator (PI). I have also participated in 3 projects funded by other public institutions and in 14 technology transfer contracts (Art. 83 LOU) with private companies (e.g. IMEC, Texas Instruments, Indra, Imagination Technologies), 12 of them also as PI which account more than 600K€ in total.

I have also served as evaluator of the National Evaluation and Long-Range Planning Agency (ANEP), Directorate-General for Universities (DGU) of the Ministry of Science, Innovation and Universities, Galician Supercomputer Center (CESGA), Andalusian University Evaluation and Accreditation Agency and the Directorate-General for Technological Innovation of the Regional Government of Madrid (CAM). I have also been member of the Board of Directors of the Spanish Computer Architecture Society (SARTECO).

Part C. RELEVANT MERITS

C.1. Publications (some of the more relevant, chronological order)

1. Rodríguez-Rodríguez, R., Díaz, J., Castro, F., Ibáñez, P., Chaver, D., Viñals, V., Saez, J.C., Prieto-Matías, M., Piñuel, L., Monreal, T., Llabería, J.M.: "Reuse Detector: Improving the Management of STT-RAM SLLCs". The Computer Journal, (61): 856-880, (2018). IF (JCR): 0.787.
Online ISSN 1460-2067 - Print ISSN 0010-4620. doi:10.1093/comjnl/bxx099
2. Rodríguez-Rodríguez, R., Castro, F., Chaver, D., Gonzalez-Alberquilla, R., Piñuel, L., Tirado, F.: Write-Aware Replacement Policies for PCM-Based Systems, The Computer Journal, (58): 2000-2025, (2015). IF (JCR): 0.787.
Online ISSN 1460-2067 - Print ISSN 0010-4620. doi: 10.1093/comjnl/bxu104.
3. Dolz, M. F., Igual, F. D., Ludwig, T., Piñuel, L., Quintana, E. S.: Balancing task- and data-parallelism to improve performance and energy consumption of matrix computations on the Intel Xeon Phi, Computers and Electrical Engineering, (46):95-111 (2015). IF (JCR): 0.817.
ISSN: 0045-7906. doi:10.1016/j.compeleceng.2015.06.009
4. Igual, F. D., García, C. Botella, G., Piñuel, L. Prieto-Matías, M., Tirado, F.: Non-negative Matrix Factorization on Low-Power Architectures and Accelerators: A Comparative Study, Computers and Electrical Engineering, (46): 139-156, (2015). IF (JCR): 0.817
ISSN: 0045-7906. doi:10.1016/j.compeleceng.2015.03.035
5. González-Alberquilla, R., Frati, F. E., Piñuel, L., Strauss, K., Ceze, L.: Data Race Detection with Minimal Hardware Support, The Computer Journal, 57(5): 675-692, (2014). IF: 0.787.
ISSN 0010-4620. doi: 10.1093/comjnl/bxt013
6. González-Alberquilla, R., Castro, F., Piñuel, L., Tirado, F.: Stack filter: Reducing L1 data cache power consumption, Journal of Systems Architecture - Embedded Systems Design, 56(12): 685-695, (2010). IF (JCR): 0.440.
ISSN: 1383-7621. doi:10.1016/j.sysarc.2010.10.002
7. Castro, F., Noor, R., Garg, A., Chaver, D., Huang, M. C., Piñuel, L., Prieto, M., Tirado, F.: Replacing Associative Load Queues: A Timing Centric Approach. IEEE Transactions on Computers, 58(4): 496 – 511, (2009). IF (JCR): 1.822.
ISSN 0018-9340. doi: 10.1109/TC.2008.146.
8. Castro, F., Chaver, D., L. Piñuel, Prieto, M. Tirado, F.: Using age registers for a simple load-store queue filtering, Journal of Systems Architecture - Embedded Systems Design, 55(2): 79-89, (2009). IF (JCR): 0.440.
ISSN: 1383-7621. doi:10.1016/j.sysarc.2008.09.005
9. Tenllado, C., Setoain, J., Prieto, M., Piñuel, L., Tirado, F.: Parallel Implementation of the 2D Discrete Wavelet Transform on Graphics Processing Units: Filter Bank versus Lifting. IEEE Trans. Parallel Distrib. Syst. 19(3): 299-310, (2008). IF (JCR): 2.17.
ISSN: 1045-9219. doi: 10.1109/TPDS.2007.70716

C.2. Research projects and grants (5 more relevant, reverse chronological order)

1. Title: Heterogeneity and specialization In the post-Moore ERA
Funding Institution: MINECO (RTI2018-093684-B-I00)
Principal Investigator: Manuel Prieto Matías and Luis Piñuel Moreno (UCM)
Start: 1/01/2019 End: 31/12/2021
Amount: 300.927 €
2. Title: Computación heterogénea eiciente: del procesador al datacenter
Funding Institution: MINECO (TIN2015/65277)
Principal Investigator: Manuel Prieto Matías and Luis Piñuel Moreno (UCM)
Start: 1/01/2016 End: 31/12/2019
Amount: 371.470 €

3. Title: Arquitecturas y tecnologías emergentes. Eficiencia energética mediante heterogeneidad
Funding Institution: Mº de Educación y Cultura (TIN2012-32180)
Principal Investigator: Manuel Prieto Matías (UCM)
Start: 1/01/2013 End: 31/12/2015
Amount: 219.620 €
4. Title: Arquitectura hardware/software para sistemas de alto rendimiento II
Funding Institution: Mº de Educación y Ciencia (TIN2008-00508)
Principal Investigator: José F. Tirado Fernández (UCM)
Start: 1/01/2009 End: 30/06/2015
Amount: 1.217.260 €
5. Title: Supercomputing and e-Science
Funding Institution: MINECO (CONSOLIDER INGENIO 2010 - CSD 2007-50)
Principal Investigator: Mateo Valero Cortés (UPC)
Start: 1/10/2007 End: 31/12/2013
Amount: 5M €

C.3. Contracts (5 more relevant, chronological order)

1. Title: desarrollo de un servidor ftp y stack TCP/IP optimizados para la placa TIP SRI (Art. 83 LOU).
Company: INDRA S.A.
Principal investigator: Luis Piñuel Moreno (UCM).
Start: 13/04/2013 - End: 01/07/2013
Amount: 68.226,12€
2. Title: Plataforma hw/sw para desarrollo de servicios de un dispositivo satelital sobre un lenguaje de programación imperativo (Art. 83 LOU).
Company: SATLINK S.L.
Principal investigator: Luis Piñuel Moreno (UCM).
Start: 16/10/2013 - End: 16/09/2014
Amount: 62.985€
3. Title: High Performance Dense Linear Algebra on Multicore DSPs (Art. 83 LOU).
Company: Texas Instruments.
Principal investigator: Luis Piñuel Moreno and Francisco Igual (UCM).
Start: 26/09/2013 - End: 16/09/2015
Amount: 40.000€
4. Title: Optimización de una Plataforma HW/SW para desarrollo de servicios de un dispositivo satelital sobre un lenguaje de programación imperativo (Art. 83 LOU).
Company: SATLINK S.L.
Principal investigator: Luis Piñuel Moreno (UCM).
Start: 10/12/2014 - End: 10/10/2015
Amount: 77.082€
5. Title: Adaptation of the SOL Framework for the use of IoT oriented low Earth orbit satellite communications (Art. 83 LOU).
Company: SATLINK S.L.
Principal investigator: Luis Piñuel Moreno (UCM).
Start: 26/11/2018 - End: 26/05/2020
Amount: 82.444,56€

C.5. Research stays

1. **Research institution:** University of Southern California (Los Angeles, USA).
Duration of the stay: 4 months (09/1997-12/1997).
Supervisor: Michel Dubois

C.6. Awards

1. 2002/2003 Extraordinary Doctorate Award of the Computer Science Faculty (UCM)

C.7. Other merits

1. Service as reviewer for Journals/Conferences as IEEE Transactions on Computers, MICRO, CODES+ISSS, DATE, ICCAD, Europar, etc.
2. Service as Organizing Committee: HPCA, ISSS, Europar.
3. Service as evaluator for the National Evaluation and Long-Range Planning Agency (ANEP).
4. Service as evaluator for the Directorate-General for Universities (DGU) of the Ministry of Science, Innovation and Universities.
5. Service as evaluator for the Galician Supercomputer Center (CESGA).
6. Service as evaluator for the Andalusian University Evaluation and Accreditation Agency.
7. Service as evaluator for the Directorate-General for Technological Innovation of the Regional Government of Madrid (CAM).
8. Member of the Board of Directors of the Spanish Computer Architecture Society (SARTECO).
9. Registrar and Secretary of the Physics Faculty from 2010 to 2015.
10. Member of the European Network on High Performance and Embedded Architecture and Compilation (HiPEAC).
11. Member of the Spanish Network on High Performance Computing on Heterogeneous Parallel Architectures (CAPAP-H).