

Luís Paulo Peixoto dos Santos

Curriculum Vitae

October, 2009

Identification

1.1. Personal Data

- Name: Luís Paulo Peixoto dos Santos
- Birth date: 29th, November, 1967
- Nationality: Portuguese
- Work Place: Department of Informatics
Universidade do Minho
Campus de Gualtar
4710-057 Braga
Portugal
- Status: Auxiliar Professor
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1.2. Academic Degrees

- PhD in Informatics, School of Engineering, Universidade do Minho, June, 2001
- Master in Informatics, Department of Informatics, School of Engineering da Universidade do Minho, September, 1994
- Lic. Engineering on Informatics, Universidade do Minho, September, 1990

1.3. Professional Activity

- Auxiliar Professor, Computer Engineering, Department of Informatics, School of Engineering, Universidade do Minho, Braga, Portugal 2001
- Teaching Assistant Computer Engineering, Department of Informatics, School of Engineering, Universidade do Minho, Braga, Portugal, 1990 .. 2001

2. Teaching Activity

2.1. Courses

Undergraduates

- *Computer Graphics*; 3rd year, Engineering on Informatics and Computer Science; 2008/09
- *Computer Architecture*; 2nd year, Engineering on Informatics; 2001 .. 2010
- *Algorithms and Data Structures*; 2º e 3º anos, Engineering on Informatics, Universidade Nacional de Timor-Lorosae, Díli, Timor-Lorosae; October .. December, 2004

Master

- *Illumination and Photorealism*; Master on Informatics, 2007 .. 2010
- *Computer Animation* ; Master on Computer Graphics and Virtual Environments, 2007 .. 2010

Phd

- *Distributed Computer Graphics*; PhD Program in Informatics, consortium Minho-Aveiro-Porto (MAP-i); 2007/08

2.2. Post-Graduate Supervision

PhD

- Valentim , Sérgio; *“Interactive Ray Tracing”*; PhD in Informatics; Universidade do Minho, since March, 2006

Master

- Nunes, Miguel; *“Interactive Ray Tracing Kernel”*; Universidade do Minho, 2008/09;
- Cruz, Eduardo; *“Interactive Ray Tracing: Paralle Processing”*; Universidade do Minho, 2008/09;
- Marques, Ricardo; *“Interactive Volume Rendering for Medical Imaging”*; Universidade do Minho, 2008/09;
- Vilas, Hélio Manuel; *“Serious Games for Computer Engineering Students”*; Universidade do Minho, 2008/09;
- Oliveira, António; *“Refinement Criteria for Interactive Walkthroughs”*; Universidade do Minho, 2006;
- Valentim, Sérgio; *“Parallel Progressive PreComputed Radiance Transfer”*; Universidade do Minho, 2006;
- Coelho, Vítor Manuel Santos; *“Interactive Walkthroughs”*; Universidade do Minho, 2005;

3. Research

3.1. Publications

For each publication the number of citations is presented inside square brackets, excluding self-citations. Publications that appear on ISI Web of Knowledge are labelled with [ISI: publication type: area classification].

Revistas Internacionais

Debattista, Kurt and Dubla, Piotr and Banterle, Francesco and Santos, Luís Paulo and Chalmers, Alan; "*Instant Caching for Interactive Global Illumination*"; Computer Graphics Forum, 2009 (to appear) [0]

Chalmers, Alan; Debattista, Kurt; Mastoropoulou, Georgia; Santos, Luís Paulo; "*There-Reality: Selective Rendering in High Fidelity Virtual Environments*"; International Journal of Virtual Reality, Vol. 6 (1), pp. 1--10, IPI Press, March 2007 [1]

Santos, Luís Paulo; Chalmers, Alan; Proença, Alberto; "*A messages-density monitoring strategy for distributed-memory parallel systems*"; PROGRAMMING AND COMPUTER SOFTWARE , Vol. 21 (1), pp. 51--55, January 1995 [0]
[ISI: ARTICLE: COMPUTER SCIENCE, SOFTWARE ENGINEERING]

Editorials

Santos, Luís Paulo; Reiners, Dirk; Favre, Jean; "*Parallel Graphics and Visualization*"; Computers and Graphics, 32(1), pp. 1-2, February, 2008 [1]
[ISI: EDITORIAL MATERIAL: COMPUTER SCIENCE, SOFTWARE ENGINEERING]

Santos, Luís Paulo; "*Parallel Graphics and Visualization*"; Parallel Computing, 33(6), pp. 359-360, June, 2007 [0]
[ISI: EDITORIAL MATERIAL: COMPUTER SCIENCE, THEORY & METHODS]

International Conferences

Dubla, Piotr and Banterle, Francesco and Debattista, Kurt and Santos, Luís Paulo and Chalmers, Alan; "*Wait-Free Shared-Memory Irradiance Cache*"; Eurographics Symposium on Parallel Graphics and Visualization (EGPGV2009), pp. 57--64; March, 2009 [0]

Chalmers, Alan; Debattista, Kurt; Santos, Luís Paulo; "*Selective Rendering: Computing Only What You See*"; Graphite'2006 – Keynote Paper, pp. 9--18; Malaysia; December, 2006 [1]

Oliveira, António and Santos, Luís Paulo and Proença, Alberto; "*Refinement Criteria for High Fidelity Interactive Walkthroughs*"; Graphite'2006, pp. 453--460; Malaysia; December, 2006 [0]

Debattista, Kurt and Santos, Luís Paulo and Chalmers, Alan; *"Accelerating the Irradiance Cache through Parallel Component-Based Rendering"*; EGPGV'2006 - 6th Eurographics Symposium on Parallel Graphics Visualization; Braga, Portugal, May, 2006 [1]

Santos, Luís Paulo and Valentim, Sérgio and Fernandes, António Ramires; *"Parallel Progressive Precomputed Radiance Transfer"*; SCCG'2006 - Spring Conference on Computer Graphics; In-cooperation with ACM SIGGRAPH and Eurographics, Častá-Papiernička, Slovakia, April, 2006 [0]

Debattista, K. and Sundstedt, V. and Santos, Luís Paulo and Chalmers, A.; *"Selective Component Based Rendering"*; Graphite'2005; New Zealand, December, 2005 [2]

Trystram, D. and Bender, M. and Schwiegelshohn, U. and Santos, Luís Paulo; *"Scheduling and Load Balancing"*; EuroPar'2005: Parallel Processing; Lecture Notes in Computer Science 3648; Springer-Verlag; Lisbon, Portugal, 2005 [0]
[ISI: PROCEEDINGS PAPER: COMPUTER SCIENCE, THEORY & METHODS]

Ledda, Patrick and Santos, Luis Paulo and Chalmers, Alan; *"A Local Model of Eye Adaptation for High Dynamic Range Images"*; Afrigraph'2004; Stellenbosch, Cape Town, South Africa; November, 2004 [16]

Santos, Luis Paulo and Proença, Alberto; *"Scheduling Under Conditions of Uncertainty: a Bayesian Approach"*; EuroPar'2004: Parallel Processing; Lecture Notes in Computer Science 3149; Springer-Verlag, pp. 222--229; Pisa, Italy; September, 2004 [2]
[ISI: PROCEEDINGS PAPER: COMPUTER SCIENCE, THEORY & METHODS]

Santos, Luis Paulo and Proença, Alberto; *"A Systematic Approach to Effective Scheduling in Distributed Systems"*; VECPAR'2002 - 5th Int. Meeting on High Performance Computing for Computational Science, pp. 813--825, Porto, Portugal, June, 2002 [0]

Santos, Luís Paulo and Proença, Alberto; *"A Bayesian RunTime Load Manager on a Shared Cluster"*; Scheduling and Load Balancing on Clusters (SLAB'2001), special session in IEEE International Symposium on Cluster Computing and the Grid (CCGrid'2001), IEEE Computer Society Press, Brisbane, Australia, May, 2001 [0]
[ISI: PROCEEDINGS PAPER: COMPUTER SCIENCE, THEORY & METHODS, INFORMATION SYSTEMS]

Santos, Luís Paulo and Castro, Vítor and Proença, Alberto; *"Evaluation of the communication performance on a parallel processing system"*; Recent Advances In Parallel Virtual Machine and Message Passing Interface; Lecture Notes in Computer Science, vol. 1332, pp. 41-48, 1997 [0]
[ISI: PROCEEDINGS PAPER: COMPUTER SCIENCE, THEORY & METHODS]

Cunha, Alcino and Santos, Luís Paulo and Belo, Orlando; *"Enhancing load distribution strategies through simulation"*; 9th European Simulation Symposium, Passau, Germany, 1997 [0]
[ISI: PROCEEDINGS PAPER: COMPUTER SCIENCE, SOFTWARE ENGINEERING]

National Conferences

Marques, Ricardo and Santos, Luís Paulo; *"GPU Ray Casting"*; 17^o Encontro Português de Computação Gráfica; Covilhã, Portugal, 2009 [0]

Nunes, Miguel and Santos, Luís Paulo; *"Workload Distribution for Ray Tracing in Multi-Core Systems"*; 17^o Encontro Português de Computação Gráfica; Covilhã, Portugal, 2009 [0]

Santos, Luís Paulo and Sobral, João Luís; *"Inventário Automático de Sinais de Trânsito: um Sistema de Mapeamento Móvel"*; 15^o Encontro Português de Computação Gráfica; Porto Salvo, Portugal, 2007 [0]

Short Papers

Santos, Luís Paulo and Coelho, Vítor and Bernardes, Paulo and Proença, Alberto; *"High Fidelity Walkthroughs in Archaeology Sites"*; VAST'2005 - 6th Int. Symposium on Virtual Reality, Archaeology and Cultural Heritage; Pisa, Italy, November, 2005 [0]

3.2.Editor

International Journals

Computers & Graphics; Volume 32, Issue 1; *Parallel Graphics and Visualization*; Eds.: Luis Paulo Santos, Dirk Reiners, Jean Favre; March, 2008

Journal of Parallel Computing; Volume 33, Issue 6, pags. 359--466; *Parallel Graphics and Visualization*; Eds.: Luis Paulo Santos, Alan Heirich, Bruno Raffin; June, 2007

Conference Proceedings

"Parallel Graphics and Visualization 2007 - Eurographics/ACM Symposium Proceedings"; Eds.: Jean Favre, Luis Paulo Santos, Dirk Reiners; May, 2007

"Parallel Graphics and Visualization 2006 - Eurographics/ACM Symposium Proceedings"; Eds.: Alan Heirich, Bruno Raffin, Luis Paulo Santos; May, 2006

3.3.Reviewer

Program Chair

Co-Chair Program Committee, *"Eurographics Symposium on Parallel Graphics and Visualization - EGPGV'07"*, May, 2007

Co-Chair Program Committee for short papers, *Graphite'06*, Malaysia, December, 2006

Co-Chair Program Committee for *"Scheduling and Load Balancing"*, *"EuroPar'05"*, Lisbon, Portugal, September, 2005

Co-Chair Program Committee, *"15^o Encontro Português de Computação Gráfica"*, Porto Salvo, Portugal, 2007

Program Committee Member

"Simpósio Ibero-Americano de Computação Gráfica (SIACG)", 2009, Venezuela

"Eurographics International Symposium on Virtual Reality, Archaeology and Cultural Heritage (VAST)", 2008 and 2009

Artech2006, Pontevedra, Spain

GAMES'2006, Portalegre, Portugal

Graphite, 2005 .. 2007

"Eurographics Workshop on Parallel Graphics and Visualization (EGPGV) ", since 1996

"Encontro Português de Computação Gráfica", since 2003

Journal Papers

- *"Computers & Graphics", 2008*
- *"Journal of Parallel Computing", 2002, 2006, 2009*
- *"Pattern Analysis and Applications", 2006*
- *"Concurrency and Computation: Practice and Experience", 2006*

3.4. Research Projects

National Projects R&D : Principal Investigator

- *"Portability and Performance in Heterogeneous Many Core Systems"; PTDC/EIA-EIA/100035/2008; 100.000,00 euros; 2010..2011*
- *"IGIDE: Interactive Global Illumination on Dynamic Environments"; PTDC/EIA/65965/2006; 101.000,00 euros; 2007..2010*
- *"SIGMA - Sistema de Georeferenciação Móvel Assistido por imagem", 165.268,37 euros; 2003 .. 2005*

National Projects R&D : Investigator

- *"CROSSFIRE-Collaborative Resources Online to Support Simulations on Forest Fires: a Grid Platform to Integrate Geo-referenced Web Services for Real-Time Management"; GRID/GRI/81795/2006; 170.000,00 euros; 2007..2009*
- *"PPC-VM - Computação Paralela Portável Baseada em Máquinas Virtuais"; POSI/CHS//47158/2002; 73.690 euros; 2004..2007*
- *"ViAr - Affordable Interactive Virtual Archaeology with Adaptive Cluster Computing"; POSI/CHS/42041/2001; 68.000 euros; 2002..2004*

Industry Supported Projects

- “CAD2FE – inferring properties from CAD representations to Finite Element meshes”, Ford Automotive; 9.000,00 euros, 2008/09

International Research Projects

- "COGNITO - Cognitive Workflow Capturing and Rendering with On-Body Sensor Networks", 4.300.000,00, FP7-ICT-2009-4, 2009..2012
- "*Parallel Programming Refinements for Irregular Applications*"; UTAustin/CA/0056/2008; 148.000,00 euros; 2009..2010

3.5. Invited Researcher/Professor

- Invited Professor (*maître de conférences*), INRIA-Rennes (Université de Rennes I), Professor Kadi Bouatouch; Rennes, France, June..July 2008
- *Visiting Fellow*, Dept. of Computer Science, University of Bristol, United Kingdom, Professor Alan Chalmers; grant SFRH/BPD/11622/2002; March .. July, 2003

3.6. Conference Organization

Chair

- “*IEEE International Conference on Games and Virtual Worlds for Serious Applications (VS-Games’10)*”; Braga, Portugal, March, 2010
- "*Eurographics Workshop on Parallel Graphics and Visualization 2006 (EGPGV'06)*", Braga, Portugal, 2006

Member

- "*VAST 2008 - 9th Int. Symp. on Virtual Reality, Archaeology and Cultural Heritage*", Braga, Portugal, 2..5 December, 2008
- "*3rd IEEE International Conference on Application of Concurrency to System Design*", Guimarães, Portugal, 18 .. 20 June, 2003