

## Dr Mark Stillwell

Fellow of the Higher Education Academy (UK)

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### ACADEMIC EMPLOYMENT

- 09/2014–present:** **Research Associate**  
Distributed Software Engineering (DSE) Workgroup  
Department of Computing  
Imperial College London, United Kingdom
- 01/2012–08/2014:** **Lecturer, Distributed Computing & e-Science MSc option leader**  
Department of Engineering Computing  
Cranfield University, United Kingdom
- 12/2010–01/2012:** **Postdoctoral Researcher**  
Resource Optimization: Models, Algorithms, and scheduling (ROMA) Workgroup  
Institut National de Recherche en Informatique et en Automatique (INRIA)  
Ecole Normale Supérieure de Lyon, France
- 08/2006–06/2010:** **Research / Teaching Assistant**  
Concurrency Research Group (CoRG)  
Information & Computer Sciences Department  
University of Hawai‘i at Mānoa, Honolulu, USA
- 08/1999–08/2003:** **Teaching Assistant**  
Department of Computer & Information Science & Engineering  
Department of Mathematics  
University of Florida, Gainesville, USA

### EDUCATION

- Postgraduate Certificate, Academic Practice**, 12/2014  
Teaching, Student Supervision, Research Project Funding & Management  
Cranfield University, Cranfield, Bedfordshire, UK
- PhD, Computer Science**, 12/2010  
University of Hawai‘i at Mānoa, Honolulu, Hawaii, USA  
Thesis: *Dynamic Fractional Resource Scheduling for Cluster Platforms*  
Advisor: Prof. Henri Casanova
- MS, Computer Science**, 08/2003
- MS, Mathematics**, 05/2002  
University of Florida, Gainesville, Florida, USA
- BS, Computer Science, Mathematics minor**, 05/1999  
University of North Florida, Jacksonville, Florida, USA  
magna cum laude

### REFEREED INTERNATIONAL JOURNAL ARTICLES

- M. Stillwell, F. Vivien, and H. Casanova, “Dynamic fractional resource scheduling versus batch scheduling,” *IEEE Transactions on Parallel and Distributed Systems*, vol. 23, no. 3, pp. 521–529, 2012.
- M. Stillwell, D. Schanzenbach, F. Vivien, and H. Casanova, “Resource allocation algorithms for virtualized service hosting platforms,” *Journal of Parallel and Distributed Computing*, vol. 70, no. 9, pp. 962–974, 2010.

## REFEREED INTERNATIONAL CONFERENCE & WORKSHOP PAPERS

P. Bédaride, A. Degomme, S. Genaud, A. Legrand, G. S. Markomanolis, M. Quinson, M. Stillwell, F. Suter, and B. Videau, “Toward better simulation of mpi applications on ethernet/tcp networks,” in *Proceedings of the 4th International Workshop on Performance Modeling, Benchmarking and Simulation of High Performance Computer Systems*, Nov. 2013.

M. Stillwell, F. Vivien, and H. Casanova, “Virtual machine resource allocation for service hosting on heterogeneous distributed platforms,” in *Proceedings of the 26th International Parallel and Distributed Processing Symposium*, May 2012.

P.-N. Clauss, M. Stillwell, S. Genaud, F. Suter, H. Casanova, and M. Quinson, “Single node on-line simulation of MPI applications with SMPI,” in *Proceedings of the 25th International Parallel and Distributed Processing Symposium*, May 2011.

M. Stillwell, F. Vivien, and H. Casanova, “Dynamic fractional resource scheduling for HPC workloads,” in *Proceedings of the 24th International Parallel and Distributed Processing Symposium*, Apr. 2010.

M. Stillwell, D. Schanzenbach, F. Vivien, and H. Casanova, “Resource allocation using virtual clusters,” in *Proceedings of the 9th International Symposium on Cluster Computing and the Grid*, May 2009, pp. 260–267.

## MSC STUDENT SUPERVISION

- 2014:** Marcin Dlugajczyk, *Virtual Machine CPU Schedulers for Communicating Parallel Tasks*  
Saqib Hussain, *Improving Reproducibility of Parallel Computations with Docker*  
Miguel Grimaldos Moreno, *Computational Offloading from an Android Device*  
Ricard Garra Oronich, *Resource Federation and Access Delegation System with X.509 Certificates*  
Gabriel Muller, *HTML5 WebSocket Protocol and its Application to Distributed Computing*  
Léo Unbekandt, *Resource Allocation Algorithms for Containerized Web Applications*  
Gabor Lazlo Zelei, *Android Mobile App Development for a Streaming Music Service*  
Dereck Webster (MSc by Research, with Dr Toby Breckon),  
*Rain Drop Detection for Improved Sensing in Automotive Computer Vision Applications*
- 2013:** Hubert Ametefe, *VM Configuration and Build System for Reproducible Computer Experiments*  
Christos Batzillis, *Globus Online Interface for Android*  
Bernadetta Brzeczek, *High-performance Distributed Calculations on Android Devices*  
Edern Hotte, *MyProxy Client for Android*  
Attila Döme Lehoczy, *Workflow for MPI-tracing experiments on Grid5000*  
Keyne Leuyckx, *VM Schedulers for Distributed Communicating Parallel Tasks*  
Valter Pinho, *Taverna Workflow Editor for Android*  
Felipe Schmitt, *Data Sharing on P2P Mobile Networks*  
Ambrus Simon, *Taguchi Methods for Hadoop-based Parameter Sweep Experiments*
- 2012:** Tamás Barabás, *Simulation Study of Distributed Hash Table Algorithms*  
Csaba Kerti, *Virtual Machine Co-Scheduling Modules for Xen*  
Dalgis Diaz León, *HPC for Cloud Computing User Interface*

## INVITED TALKS

- 06/2013:** *SMPI Data Management Planning Exercise*  
Singrid Code Sprint, ANR/INFRA SONGS: Simulation of Next Generation Systems Project  
Lyon, France
- 06/2011:** *Dynamic Fractional Resource Scheduling Practical Issues and Future Directions*  
International Research Workshop on Advanced High Performance Computing Systems  
Cetraro, Italy
- 05/2011:** *Dynamic Fractional Resource Scheduling vs. Batch Scheduling*  
Scheduling in Aussois Workshop  
Aussois, France

## SERVICE ACTIVITIES

Co-Organizer, 1st International Workshop on Reproducibility in Parallel Computing, Euro-Par, 2014  
Local Coordinator, EPCC/Archer Cranfield Software Carpentry Bootcamp, 2014  
PC Member, International Parallel and Distributed Processing Symposium, 2014, 2013  
PC Member, International Conference on High Performance Computing, 2014, 2013, 2012  
PC Member, International Conference on High Performance Computing & Simulation, 2014  
PC Member, International Conference on Advanced Communications and Computation, 2014  
PC Member, International Conference on Grid Computing, 2012, 2011  
Reviewer, *Journal of Systems and Software*, 2014, 2013, 2012  
Reviewer, *Parallel Computing*, 2014, 2013, 2011  
Reviewer, *Future Generation Computer Systems*, 2014, 2013, 2010  
Reviewer, *Journal of Parallel and Distributed Computing*, 2012, 2011  
Reviewer, *Theory of Computing Systems*, 2012  
Reviewer, *Journal of Scheduling*, 2011  
Reviewer, *Transactions on Computing*, 2011  
Reviewer, *Concurrency and Computation: Practice and Experience*, 2011  
Reviewer, *Computers & Electrical Engineering*, 2011

## NONACADEMIC EMPLOYMENT

**12/2003–06/2004: Web Administrator**  
MasterCard International (contract employee for TEKSystems, Inc.)  
St. Louis, USA  
**03/2001–06/2003: Linux Administrator**  
University of Florida  
Gainesville, USA  
**09/1997–06/1999: Web / Database Programmer**  
Millennium TSI  
Jacksonville, USA

## HONORS AND AWARDS

**Sarah Ann Martin Award in Information Science**, ARCS Foundation, 2010–2011  
**Travel Grant**, Research Corporation of the University of Hawai'i, to attend IPDPS 2011  
**Mānoa Opportunity Grant**, University of Hawai'i at Mānoa, 2009–2010  
**FLO Professional Development Fellowship**, Una Chapman Cox Foundation, 2006–2007  
**Grinter Fellowship**, University of Florida, 1999–2002  
**National Merit Scholar Finalist Scholarship**, University of North Florida, 1995–1999  
**Florida Bright Futures Scholarship**, State of Florida, 1995–1999

## MEMBERSHIPS

Institute of Electrical and Electronics Engineers (IEEE)  
Association for Computing Machinery (ACM)