Francesco Quaglia
CURRICULUM VITAE

May 2020

Part I - General Information

Francesco Quaglia
Full Professor
School of Computer Engineering
University of Rome "Tor Vergata"
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https://francescoquaglia.github.io/

Part II - Education

MS: *Electronic Engineering* at the University of Rome "La Sapienza" (17 February 1995).

PhD: *Computer Engineering* at the University of Rome "La Sapienza"(13 May 1999).

Part III - Academic Resume

III-A - Positions

Full professor in Computer Engineering, University of Rome "Tor Vergata" since June 2017.

Associate professor in Computer Engineering, University of Rome "La Sapienza" from January 2005 to June 2017.

Research associate in Computer Engineering, University of Rome "La Sapienza" from September 2000 to December 2014.

III-B - Institutional assignments

Coordinator of the PhD program in Computer Science, Control and GeoInformation at the University of Rome "Tor Vergata" since February 2019.

Elected Member of the Academic Senate at the University of Rome "La Sapienza" from 2009 to 2013.

Member of the PhD board in Computer Engineering at the University of Rome "La Sapienza" for 2015 to 2017.

Part IV - Professional Activity

Founder member of the Lockless srl startup - joint startup between the Universities of Rome "Tor Vergata" and "La Sapienza".

Member of various verification juries for the assessment of projects of national relevance.

Consultant expert for numerous public institutions and private companies.

Part V - Research activity

Francesco Quaglia's research activities target the following areas:

    ▷   parallel and distributed computing

    ▷   high performance computing

    ▷   dependable computing

    ▷   parallel/distributed and federated simulation systems

    ▷   Web based systems

    ▷   transactional systems

    ▷   operating systems

    ▷   performance analysis and optimization

Part VI - Summary of publication record

PUBLICATION TYPE	NUMBER	INDEXING	START PERIOD	END PERIOD
International Journals (editorials excluded)	47	DBLP/Scopus/WoS	1998	2020
International Conferences/Workshops	146	DBLP/Scopus/WoS	1997	2020
Book Chapters	2	DBLP	2014	2019

BIBLIOMETRIC INDEX	VALUE	REFERENCE DATABASE
total citations	2529	Google Scholar
H-index	29	Google Scholar
i10-index	77	Google Scholar

Part VII - Awards and honors

1. HiPEAC Technology Transfer Award (2018) - Granted to the ROOT-Sim project by the Lockless startup (application done by Dr. Alessandro Pellegrini)

2. PhD co-advisor of Dr. Stefano Conoci, who won the best PhD colloquium presentation award at PADS 2018

3. PhD advisor of Dr. Davide Cingolani, who won the best PhD colloquium presentation award at PADS 2017

4. Best Paper Award at the 20th IEEE/ACM Symposium on Distributed Simulation and Real Time Applications (DS-RT 2016) for: R. Marotta, M.Ianni, A.Pellegrini and F.Quaglia, "A Lock-Free O(1) Event Pool and its Application to Share-Everything PDES Platforms"

5. Co-Advisor (with Prof. Paolo Romano - INESC-ID, Lisbon) for the PhD Thesis "Efficient Protocols for Replicated Transactional Systems" by Sebastiano Peluso, which won the William C. Carter Award - 2016 edition

6. Advisor for the PhD Thesis "Techniques for Transparent Parallelization of Discrete Event Simulation Models" by Alessandro Pellegrini, which won the Sapienza University best PhD thesis award (competition 2015)

7. Future Grid 2012 Project Challenge Award - Granted to the Cloud-TM FP7 Project for the achievements in: S.Peluso, P.Ruivo, P.Romano, F.Quaglia and L.Rodrigues, "When Scalability Meets Consistency: Genuine Multiversion Update-Serializable Partial Data Replication", IEEE 32nd International Conference on Distributed Computing Systems (ICDCS 2012)

8. Best Paper Award at the 7th IEEE Symposium on Network Computing and Applications (NCA'08) for: P.Romano, D.Rughetti, F.Quaglia and B.Ciciani, "APART: Low Cost Active Replication for Multi-tier Data Acquisition Systems"

9. Best Paper Award at the 14th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS'00) for: F.Quaglia and V.Cortellessa, "Grain sensitive event scheduling in Time Warp parallel discrete event simulation"

10. Best Paper Award at the 2nd ACM-SIGPLAN International Conference on Principles and Practice of Declarative Programming (PPDP'00) for: M. Pedicini and F.Quaglia, "A Parallel Implementation for Optimal Lambda-Calculus Reduction"

11. Best Paper Award at the 1998 Conference on Simulation Methods and Applications (CSMA'98) for: V.Cortellessa and F.Quaglia, "An analysis of the efficiency of optimistically synchronized parallel simulators"

Part VIII - Selected research projects

NAME	PERIOD	FUNDING SOURCE	FUNDING AMOUNT	MY ROLE
SATURN	Starting in 2016 (3 year-project)	FCT (Portugal)	190K euro	Coordinator of the Sapienza team
Cloud-TM	June 2010 - June 2013	EU (FP7)	1,700,000 euro	Coordinator of the CINI team
ARISTOS	Feb 2010 - Feb 2013	FCT (Portugal)	125K euro	Coordinator of the Sapienza team

Further, he is the founder of the research/project team of the ROOT-Sim open source simulation environment[1], which has been awarded (in 2018) with the HiPEAC Technology Transfer Award. This environment encapsulates several core research results achieved in the area of discrete event simulation.

Part IX - PhD Advising

Name	PhD achievement	Topic
Paolo Romano	2007	Distributed/Transactional Systems
Roberto Palmieri	2012	Distributed/Transactional Systems
Roberto Vitali	2014	Parallel/Distributed Computing
Alessandro Pellegrini	2015	Parallel/Distributed Computing
Sebastiano Peluso	2015	Distributed/Transactional Systems
Davide Cingolani	2018	Reversible Computing
Mauro Ianni	2018	Non-blocking Synchronization
Simone Economo	2019	Memory Access Characterization
Romolo Marotta	2019	Non-blocking Synchronization
Emiliano Silvestri	scheduled for 2020	Task Parallelism
Matteo Principe	scheduled for 2021	Run-time Environments

Part X - Editorial-ship

1. **Editor in Chief** - ACM Transactions on Modeling and Computer Simulation (since september 2019 -)

2. **Guest Editor** - ACM Transactions on Modeling and Computer Simulation - Special issue on SIGSIM PADS 2018

3. **Associate Editor** - ACM Transactions on Modeling and Computer Simulation (2016 - 2019)

4. **Editorial board member** - The Scientific World Journal (SWJ) - (2012 -)

5. **Guest Editor** - SIMULATION: Transactions of the Society for Modeling and Simulation International - vol.88, issue 7 - Special Issue on the Principles of Advanced and Distributed Simulation

6. **Guest Editor** - International Journal of Simulation and Process Modelling - vol.5, issue 2, 2009 - Special Issue on Parallel and Distributed Simulation

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[1]See `https://github.com/HPDCS/ROOT-Sim`

7. **Editorial board member** - International Journal of Simulation and Process Modelling (IJSPM) - (2004 -)

Part XI - Conference organization - Invited Talks - TPC/Steering Committee participation

XI-A - Chairmanship

1. **General co-chair** of the ACM SIGSIM Conference on Principles of Advanced and Discrete Simulation (PADS 2018), Rome, Italy

2. **Program co-chair** of the International Workshop on Autonomic High Performance Computing (AHPC 2016), Innsbruck, Austria

3. **Poster co-chair** of the 2015 International Conference on High Performance Computing & Simulation (HPCS 2015), Amsterdam, the Netherlands

4. **Program chair** of the 3rd IEEE International Symposium on Network Cloud Computing and Applications (NCCA 2014), Rome, Italy

5. **Poster co-chair** of the 2014 International Conference on High Performance Computing & Simulation (HPCS 2014), Bologna, Italy

6. **Poster co-chair** of the 2013 International Conference on High Performance Computing & Simulation (HPCS 2013), Helsinki, Finland

7. **Program co-chair** of the 5th International ICST Conference on Simulation Tools and Techniques (SIMUTools 2012), Sirmione-Desenzano, Italy

8. **Tutorial chair** of the 2011 International Conference on High Performance Computing & Simulation (HPCS 2011), Istanbul, Turkey

9. **General co-chair** of the 4th International ICST Conference on Simulation Tools and Techniques (SIMUTools 2011), Barcelona, Spain

10. **Program co-chair** of the 24th ACM/IEEE Workshop on Principles of Advanced and Distributed Simulation (PADS 2010), Atlanta, Georgia, USA

11. **General chair** of the 22nd ACM/IEEE Workshop on Principles of Advanced and Distributed ed Simulation (PADS 2008), Roma, Italy

12. **Program co-chair** of the 6th IEEE International Symposium on Network Computing and Applications (NCA 2007), Cambridge, MA, USA

13. **Program co-chair** of the 16th ACM/IEEE Workshop on Parallel and Distributed Simulation (PADS 2002), Washington, DC, USA

XI-B - Invited talks

▷ **Invited Keynote** at DS-RT 2017 - Talk title: "Core, threads, objects: Re-knead all for a new generation PDES"

▷ **Invited Keynote at ICPE 2017** - Talk title: "Performance is also a matter of where you live"

> ▷ **Invited Tutorial** at Euro-Par 2013 (PADABS workshop) - Talk title: "The ROme OpTimistic Simulator: A Tutorial"

> ▷ **Invited Keynote** at SIMUTools 2009 - Talk title: Supports for Transparent Optimistic Synchronization in the High-Level-Architecture Interoperability Standard

XI-C - TPC/Steering Committee participation

He has been **Steering Committee member** of the /IEEE/SCS Workshop on Principles of Advanced and Distributed Simulation (PADS) - (2008-2011). He has also been TPC member for more than 150 international conferences and workshops.

Publications

Journals

1. R. Marotta, D. Tiriticco, P. Di Sanzo, A. Pellegrini, B. Ciciani F. Quaglia,
   Mutable Locks: Combining the Best of Spin and Sleep Locks,
   Concurrency and Computation: Practice and Experience, to appear.

2. M. Principe, T. Tocci, P. Di Sanzo, F. Quaglia and A. Pellegrini,
   A Distributed Shared-memory Middleware for Speculative Parallel Discrete Event Simulation,
   ACM Transactions on Modeling and Computer Simulation, vol 30, issue 2, article no.11, 2020.

3. P. Di Sanzo, A. Pellegrini, M. Sannicandro, B. Ciciani and F. Quaglia,
   Adaptive Model-based Scheduling in Software Transactional Memory,
   IEEE Transactions on Computers, vol.69, pp.621-232, 2020.

4. A. Pellegrini and F. Quaglia,
   Cross-State Events: a New Approach to Parallel Discrete Event Simulation and its Speculative Runtime Support,
   Journal of Parallel and Distributed Computing, 2019 preprint.

5. F. Quaglia,
   Replicated Computational Results (RCR) Report for "Fast Random Integer Generation in an Interval",
   ACM Transactions on Modeling and Computer Simulation, Volume 29, Issue 1, January 2019, Article No. 4.

6. M. Ianni, A. Pellegrini and F. Quaglia,
   Anonymous Readers Counting: A Wait-free Multi-word Atomic Register Algorithm for Scalable Data Sharing on Multi-core Machines,
   IEEE Transactions on Parallel and Distributed Systems, 30(2): 286-299 (2019) .

7. D. Rughetti, P. Di Sanzo, B. Ciciani and F. Quaglia,
Machine Learning-based Thread-Parallelism Regulation in Software Transactional Memory,
Journal of Parallel and Distributed Computing, Volume 109, November 2017, Pages 208-229.

8. D. Cingolani, A. Pellegrini and F. Quaglia,
Transparently Mixing Undo Logs and Software Reversibility for State Recovery in Optimistic PDES,
ACM Transactions on Modeling and Computer Simulation, Volume 27 Issue 2, July 2017, Article No. 11.

9. A. Pellegrini and F. Quaglia,
A Fine-grain Time-sharing Time Warp System,
ACM Transactions on Modeling and Computer Simulation, Volume 27 Issue 2, July 2017 Article No. 10.

10. A. Pellegrini, S. Peluso, F. Quaglia and R. Vitali
Transparent Speculative Parallelization of Discrete Event Simulation Applications Using Global Variables,
International Journal of Parallel Programming (special issue on Sequential Code Parallelization), 44(6): 1200-1247, 2016.

11. S. Peluso, P. Ruivo, P. Romano, F. Quaglia, L. Rodrigues,
GMU: Genuine Multiversion Update-Serializable Partial Data Replication,
IEEE Transactions on Parallel and Distributed Systems, 27(10): 2911-2925 (2016).

12. P. Di Sanzo, F. Quaglia, B. Ciciani, A. Pellegrini, D. Didona, P. Romano, R. Palmieri, S. Peluso,
A Flexible Framework for Accurate Simulation of Cloud In-Memory Data Stores,
Simulation Modelling Practice and Theory, 58(part 2): 219-238, 2015.

13. F. Quaglia,
A Low-Overhead Constant-Time Lowest-Timestamp-First CPU Scheduler for High-Performance Optimistic Simulation Platforms,
Simulation Modelling Practice and Theory, 53: 103-122, 2015.

14. A. Pellegrini, R. Vitali and F. Quaglia,
Autonomic State Management for Optimistic Simulation Platforms,
IEEE Transactions on Parallel and Distributed Systems, 26(6): 1560-1569, 2015.

15. D. Didona, P. Romano, S. Peluso and F. Quaglia,
Transactional Auto Scaler: Elastic Scaling of Replicated In-Memory Transactional Data Grids,
ACM Transactions on Autonomous and Adaptive Systems, 9(2): 11:1-11:32, 2014.

16. P. Romano, R. Palmieri, F. Quaglia, N. Carvalho and L. Rodrigues,
On Speculative Replication of Transactional Systems,
Journal of Computer and System Sciences, 80(1): 257-276, 2014.

17. P. Romano and F. Quaglia,
Design and Evaluation of a Parallel Invocation Protocol for Transactional Applications

over the Web,
IEEE Transactions on Computers, 63(2): 317-334, 2014.

18. R. Vitali, A. Pellegrini and F. Quaglia,
Load Sharing for Optimistic Parallel Simulations on Multicore Machines,
ACM Performance Evaluation Review, vol. 40, issue 3, pp.2-11, 2012.

19. A. Santoro and F. Quaglia,
Transparent Optimistic Synchronization in the High Level Architecture via Time-Management
Conversion,
ACM Transactions on Modeling and Computer Simulation, 22(4), 21, 2012.

20. S. Peluso, D. Didona and F. Quaglia,
Supports for Transparent Object-Migration in PDES Systems,
Journal of Simulation, 4(6):279-293, 2012.

21. P. Di Sanzo, B. Ciciani, R. Palmieri, F. Quaglia, P. Romano,
On the Analytical Modeling of Concurrency Control Algorithms for Software Transac-
tional Memories: The Case of Commit-Time-Locking,
Performance Evaluation, 69(5): 187-205, 2012.

22. P. Romano and F. Quaglia,
Providing e-Transaction Guarantees in Asynchronous Systems with no Assumptions on
the Accuracy of Failure Detection,
*IEEE Transactions on Dependable and Secure Computing, vol.8, issue 1, pp.104-121,
2011.*

23. F. Quaglia,
On the Construction of Committed Consistent Global States in Optimistic Simulation,
*International Journal of Simulation and Process Modelling, vol.5, issue 2, pp.172-181,
2009.*

24. P. Romano, B. Ciciani, A. Santoro and F. Quaglia,
Accuracy vs Efficiency of Hyper-exponential Approximations of the Response Time
Distribution of MMPP/M/1 Queues,
*International Journal of Parallel, Emergent and Distributed Systems, vol.24, issue 2,
pp.107-125, 2009.*

25. F. Quaglia,
Software Diversity-Based Active Replication as an Approach for Enhancing the Perfor-
mance of Advanced Simulation Systems,
*International Journal of Foundations of Computer Science, vol.18, no.3, pp.495-515,
2007.*

26. A. Santoro and F. Quaglia,
Multiprogrammed Non-blocking Checkpoints in Support of Optimistic Simulation on
Myrinet Clusters,
Journal of Systems Architecture, vol.53, no.9, pp.659-676, 2007.

27. F. Quaglia and P. Romano,
Ensuring e-Transaction with Asynchronous and Uncoordinated Application Server Re-
plicas,
IEEE Transactions on Parallel and Distributed Systems, vol.18, no.3, pp.364-378, 2007.

28. M. Pedicini and F. Quaglia,
    PELCR: Parallel Environment for Optimal Lambda-Calculus Reduction,
    ACM Transactions on Computational Logic, vol.8., no.3, Article 14 (pp.1-36), 2007.

29. A.Santoro and F.Quaglia,
    Transparent State Management for Optimistic Synchronization in the High Level Architecture (extended version),
    SIMULATION: Transactions of The Society for Modeling and Simulation International, vol.82, no.1, pp.5-20, 2006.

30. Antonio Cosentino, Marco Pedicini, Francesco Quaglia,
    Supporting Function Calls within PELCR,
    Electronic Notes on Theoretical Computer Science, vol.135, no.3, pp.107-117, 2006.

31. A. Santoro and F. Quaglia,
    Software Supports for Event Preemptive Rollback in Optimistic Parallel Simulation on Myrinet Clusters,
    Journal of Interconnection Networks, vol.6, no.4, pp.435-458, 2005.

32. P. Romano, F. Quaglia and B. Ciciani,
    A Lightweight and Scalable e-Transaction Protocol for Three-Tier Systems with Centralized Back-End Database,
    IEEE Transactions on Knowledge and Data Engineering, vol.17, no.11, pp.1578-1583, 2005.

33. F. Quaglia and A. Santoro,
    Modeling and Optimization of Nonblocking Checkpointing for Optimistic Simulation on Myrinet Clusters,
    Journal of Parallel and Distributed Computing, vol.65, no.6, pp.667-677, 2005.

34. F. Quaglia and A. Santoro,
    Nonlocking Checkpointing for Optimistic Parallel Simulation: Description and an Implementation.
    IEEE Transactions on Parallel and Distributed Systems, vol.14, no.6, pp.593-610, 2003.

35. F. Quaglia and V. Cortellessa,
    On the Processor Scheduling Problem in Time Warp Synchronization.
    ACM Transactions on Modeling and Computer Simulation, vol.12, no.3, pp.143-175, 2002.

36. F. Quaglia,
    A Restriction of the Elastic Time Algorithm.
    Information Processing Letters, ELSEVIER, vol.83, no.5, pp.243-249, 2002.

37. F. Quaglia, B. Ciciani, M. Colajanni,
    Performance Analysis of Adaptive Wormhole Routing in a Two-Dimensional Torus,
    Parallel Computing, ELSEVIER, vol.28, no.3, pp.485-501, 2002.

38. F. Quaglia,
    A Cost Model for Selecting Checkpoint Positions in Time Warp Parallel Simulation,
    IEEE Transactions on Parallel and Distributed Systems, vol.12, no.4, pp.346-362, April 2001.

39. R. Baldoni, F. Quaglia and M. Raynal,
Consistent Checkpointing for Transaction Systems.
The Computer Journal, Oxford University Press, vol.44, no.2, pp.92-100, 2001.

40. V. Cortellessa and F. Quaglia
A Checkpointing-Recovery Scheme for Time Warp Parallel Simulation,
Parallel Computing, ELSEVIER, vol.7, no.9, pp.1227-1252, August 2001.

41. F. Quaglia, R. Baldoni and B. Ciciani,
On the "No-Z-Cycle" Property in Distributed Executions,
Journal of Computer and System Sciences, Academic Press, vol.61, no.3, pp.400-427,
2000.

42. F. Quaglia, V. Cortellessa and B. Ciciani,
Tradeoff Between Sequential and Time Warp Based Parallel Simulation,
IEEE Transactions on Parallel and Distributed Systems, vol.10, no.8, pp.781-794, Au-
gust 1999.

43. F. Quaglia and R. Baldoni,
Exploiting Intra-Object Dependencies in Parallel Simulation,
Information Processing Letters, vol.70, no.3, pp.119-125, May 1999.

44. F. Quaglia and B. Ciciani,
Performance vs. Cost of Redundant Arrays of Inexpensive Disks,
Simulation Practice and Theory, ELSEVIER, vol.2, no.15, pp.153-170, April 1999.

45. R. Baldoni, F. Quaglia and P. Fornara,
An Index-Based Checkpointing Algorithm for Autonomous Distributed Systems,
IEEE Transactions on Parallel and Distributed Systems, vol.10, no.2, pp.181-192, Fe-
bruary 1999.

46. F. Quaglia, R. Baldoni and B. Ciciani,
Mulidatabase Global Concurrency Control Algorithms: a Performance Analysis,
Foundations of Computing and Decision Sciences, vol.23, no.1, pp.15-33, 1998.

47. L.R.G Auriche, F. Quaglia and B. Ciciani,
Run-Time Selection of the Checkpoint Interval in Time Warp Simulations,
Simulation Practice and Theory, ELSEVIER, vol.6, no.5, pp.461-478, July 1998.

Conferences and workshops

2020

48. M. Principe, A. Piccione, A. Pellegrini and F. Quaglia,
Approximated Rollbacks,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS),
Miami, Florida, USA, June 2020.

49. E. Silvestri, C. Milia, R. Marotta, A. Pellegrini and F. Quaglia,
Exploiting Inter-Processor-Interrupts for Virtual-Time Coordination in Speculative Parallel Discrete Event Simulation,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS),
Miami, Florida, USA, June 2020.

V. Bruschi, M. Faltelli, A. Tulumello, S. Pontarelli, F. Quaglia, G. Bianchi, Offloading Online MapReduce tasks with Stateful Programmable Data Planes, *Prod. 23rd Conference on Innovation in Clouds, Internet and Networks (ICIN)*, Paris, France, February 2020.

2019

50. R. Marotta, M. Ianni, A. Scarselli, A. Pellegrini and F. Quaglia,
NBBS: A Non-blocking Buddy System for Multi-core Machines,
Proc. 19th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid), Cyprus, May 2019.

51. M. Spaziani Brunella, G. Bianchi, S. Turco, F. Quaglia and N. Blefari-Melazzi,
Foreshadow-VMM: Feasibility and Network Perspective,
Proc. 5th IEEE International Conference on Network Softwarization (NetSoft), Paris,
France, June 2019.

52. A. Piccione, M. Principe, A. Pellegrini and F. Quaglia,
An Agent-Based Simulation API for Speculative PDES Runtime Environments,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS),
Chicago, Illinois, USA, June 2019.

2018

53. S. Economo, E. Silvestri, P. Di Sanzo, A. Pellegrini and F. Quaglia,
Model-based Proactive Read-validation in Transaction Processing Systems,
Proc. 24th IEEE International Conference on Parallel and Distributed Systems (IC-PADS), IEEE Computer Society Press, Singapore, December 2018.

54. R. Marotta, M. Ianni, A, Scarselli, A. Pellegrini and F. Quaglia,
A Non-blocking Buddy System for Scalable Memory Allocation on Multi-core Machines,
Proc. 20th IEEE International Conference on Cluster Computing (CLUSTER) (poster
paper), IEEE Computer Society Press, Belfast, UK, 2018.

55. M. Ianni, R. Marotta, D. Cingolani, A. Pellegrini, F. Quaglia, C. Montanola-Sales and
J. Casanovas-Garcia,
Optimizing Simulation on Shared-memory Platforms: the Smart Cities Case (invited
paper),
Proc. 2018 Winter Simulation Conference (WSC), Gothenburg, Sweden, Society for
Computer Simulation, December 2018.

56. S. Conoci, P. Di Sanzo, B. Ciciani and F. Quaglia,
Adaptive Performance Optimization Under Power Constraint in Multi-thread Applications with Diverse Scalability,

Proc. 9th ACM/SPEC International Conference on Performance Engineering (ICPE), Berlin, Germany, ACM Press, April 2018.

57. M. Ianni, R. Marotta, D. Cingolani, A. Pellegrini and F. Quaglia,
The Ultimate Share-everything PDES System,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS), Rome, Italy, May 2018.

58. S. Conoci, D. Cingolani, P. di Sanzo, A. Pellegrini, B. Ciciani and F. Quaglia,
A Power Cap Oriented Time Warp Architecture,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS), Rome, Italy, May 2018.

59. M. Principe, T. Tocci, A. Pellegrini and F. Quaglia,
porting Event & Cross-state Synchronization to the Cloud,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS), Rome, Italy, May 2018. 2017

60. S. Economo, E. Silvestri, P. Di Sanzo, A. Pellegrini and F. Quaglia,
Prompt Application-Transparent Transaction Revalidation in Software Transactional Memory,
Proc. 16th IEEE International Symposium on Network Computing and Applications (NCA), Cambridge, Massachussets, USA, IEEE Computer Society Press, October/November 2017.

61. M. Ianni. Pellegrini and F. Quaglia,
A Wait-free Multi-word Atomic (1,N) Register for Large-scale Data Sharing on Multi-core Machines,
Proc. 19th IEEE International Conference on Cluster Computing (CLUSTER), IEEE Computer Society Press, Honolulu, Hawai, 2017.

2017

62. T. Tocci, A. Pellegrini, F. Quaglia, J. Casanovas-Garcia, T. Suzumura,
ORCHESTRA: An Asynchronous Wait-free Distributed GVT Algorithm,
Proc. 21st IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT), IEEE Computer Society Press, Rome, Italy, october, 2016.

63. M. Ianni R. Marotta, A. Pellegrini and F. Quaglia,
Towars a Fully Non-blocking Share-everything PDES Platform,
Proc. 21st IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT), IEEE Computer Society Press, Rome, Italy, october, 2016.

64. M. Ianni R. Marotta, A. Pellegrini and F. Quaglia,
A Non-Blocking Global Virtual Time Algorithm with Logarithmic Number of Memory Operations,
Proc. 21st IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT), IEEE Computer Society Press, Rome, Italy, october, 2016.
Candidate for (but not winner of) the Best Paper Award.

65. E. Silvestri, S. Economo, P. Di Sanzo, A. Pellegrini and F. Quaglia,
Preemptive Software Transactional Memory,
Proc. 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid), Madrid, Spain, May 2017.

66. D. Cingolani, A. Pellegrini, M. Schordan, F. Quaglia and D. Jefferson,
Dealing with Reversibility of Shared Libraries in PDES,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS),
Singapore, May 2017.

67. R. Marotta, M. Ianni, A. Pellegrini and F. Quaglia,
A Conflict-Resilient Lock-Free Calendar Queue for Scalable Share-Everything PDES
Platforms,
Proc. ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS),
Singapore, May 2017.

2015

68. A. Pellegrini, C. Montanola-Sales F. Quaglia and J. Casanovas-Garcia,
Load-Sharing Policies in Parallel Simulation of Agent-Based Demographic Models,
Proc. 4th Workshop on Parallel and Distributed Agent-Based Simulations (PADABS - Euro-Par Workshop), Grenoble, France, LNCS, Spinger-Verlang, August 2016.

69. R. Marotta, M. Ianni, A. Pellegrini and F. Quaglia,
A Lock-Free O(1) Event Pool and its Application to Share-Everything PDES Platforms,
Proc. 20th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT), IEEE Computer Society Press, London, UK, September, 2016. Winner of the Best Paper Award.

70. S. Economo, D. Cingolani, A. Pellegrini and F.Quaglia,
Configurable and Efficient Memory Access Tracing via Selective Expression-based x86 Binary Instrumentation,
Proc. 24th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS), London, UK, IEEE Computer Society Press, September 2016.

71. R. Marotta, M. Ianni, A. Pellegrini and F. Quaglia,
A Non-Blocking Priority Queue for the Pending Event Set,
Proc. 9th International ICST Conference on Simulation Tools and Techniques (SIMUTools), Prague, Czech Republic, 2016.

72. A. Pellegrini, F. Quaglia, C. Montanola-Sales and J. Casanovas-Garcia,
Programing Agent-Based Demographic Models with Cross-state and Message-Exachange Dependencies: a Study with Speculative PDES and Automatic Load-Sharing (invited paper),
Proc. 2016 Winter Simulation Conference (WSC), Washington, DC, USA, Society for Computer Simulation, December 2016.

73. D. Cingolani, M. Ianni, A. Pellegrini and F. Quaglia,
Mixing Hardware and Software Reversibility for Speculative Parallel Discrete Event

Simulation,
Proc. 8th Conference on Reversible Computation (RC), Bologna, Italy, July 2016.

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