CURRICULUM VITAE

Panagiota Fatourou

Table of Contents

1.	PERSONAL	3
2.	EDUCATION	3
3.	RESEARCH INTERESTS	3
4.	TEACHING INTERESTS	4
5.	RESEARCH APPOINTMENTS	4
6.	DISTINCTIONS AND AWARDS	
7.		
٠.	JOURNAL EDITING	
	CONFERENCE PROCEEDINGS EDITING	
	BOOK CHAPTERS	
	THESES	
	ARTICLES IN JOURNALS	
	ARTICLES IN CONFERENCES (EXTENDED ABSTRACTS)	
	Invited Research Articles in Conferences	
	BRIEF ANNOUNCEMENTS IN CONFERENCES	
8.	LIST OF COAUTHORS	
	PROFESSORS AND SENIOR RESEARCHERS	
	STUDENTS, POSTDOCS AND EARLY STAGE RESEARCHERS	16
9.	PARTICIPATION IN PROGRAM COMMITTEES	17
10	. SCIENTIFIC ACTIVITIES	19
	PARTICIPATION IN OTHER COMMITTEES	19
	ORGANIZATION OF CONFERENCES, WORKSHOPS, SUMMITS	
	ORGANIZATION OF SCHOOLS.	
	JOURNAL REFEREE AND EXTERNAL REVIEWING	
	OTHER PROFESSIONAL ACTIVITIES	
11	. TEACHING RECORD	22
12	STUDENT SUPERVISION	23
	PHD THESIS SUPERVISION	
	EARLY STAGE RESEARCHERS	
	MASTER THESIS SUPERVISION	
	DIPLOMA THESIS SUPERVISION	
	PRACTICAL TRAINING SUPERVISION	
	PARTICIPATION IN DOCTORAL DISSERTATION COMMITTEES	
	PARTICIPATION IN MASTER THESIS EXAMINATION COMMITTEES	
	PARTICIPATION IN DIPLOMA THESIS EXAMINATION COMMITTEES	
13	. PROPOSAL EVALUATION FOR THE EUROPEAN COMMISSION (EXPERT CONTRACTS)	30
14	. EVALUATION FOR THE GREEK SECRETARIAT FOR RESEARCH AND TECHNOLOGY	30
15	. PARTICIPATION IN RESEARCH AND DEVELOPMENT PROJECTS	30
16	. LECTURES – SEMINARS - PRESENTATIONS	36
	INVITATIONS TO RESEARCH SEMINARS AND OTHER SCIENTIFIC EVENTS (WHERE ATTENDANCE IS BY INVITATION	
	LECTURES AS AN ACM DISTINGUISHED SPEAKER	
	Invited Lectures in Schools	
	OTHER LECTURES – SEMINARS	38
17	. ADMINISTRATION WORK	39

1. Personal

Office Address

University of Crete Department of Computer Science P.O. Box 2208 GR-71409 Heraklion, Crete GREECE

&

Foundation for Research and Technology – Hellas Institute of Computer Science

N. Plastira 100 Vassilika Vouton GR-700 13 Heraklion, Crete GREECE

Tel.: +30 2810 393549 & +30 2810 391727 E-mail: <u>faturu@csd.uoc.gr</u> & <u>faturu@ics.forth.gr</u>

URL: http://www.csd.uoc.gr/~faturu/

Place of Birth: Kalamata, Messinia, Greece

Citizenship: Greek

Languages: Greek (native), English (fluent)

2. Education

Ph.D. in Computer Engineering and Informatics, Excellent (GPA: 10.0/10.0), Department of Computer Engineering and Informatics, University of Patras, June 1999. <u>Thesis Supervisor</u>: Paul Spirakis

Degree in Computer Science, Very Good (GPA: 8.36/10.0), Department of Computer Science, University of Crete, November 1995 (ranked 3rd in a class of 60 students).

3. Research Interests

Algorithms and Theoretical Computer Science

Design and analysis of algorithms, design and analysis of data structures, lower bounds and impossibility results

Distributed Computing

Design and analysis of distributed algorithms, complexity analysis, lower bounds and impossibility results, models, concurrent and distributed data structures, concurrent



objects, communication and synchronization protocols, energy-efficient distributed algorithms and data structures

Parallel Computing

Design and analysis of parallel algorithms, complexity analysis, parallel programming languages and runtime systems, multithreaded computing, energy-efficient parallel algorithms and data structures

Experimental Algorithmics

Implementation and experimental evaluation of algorithms (with emphasis on concurrent and distributed algorithms and data structures)

4. Teaching Interests

Theoretical Computer Science

Design and analysis of algorithms, data structures, theory of computation, distributed computing, parallel computing, principles and foundations of concurrent computing

Systems and Programming

Distributed and parallel systems, operating systems, programming languages, concurrent programming, network programming

Mathematics for Computer Science

Combinatorics, probability, queuing theory, graph theory

5. Research Appointments

- 1. École Polytechnique Fédérale de Lausanne, Switzerland Visiting Professor, June 2017
- 2. *Department of Computer Science*, University of Crete, Greece **Associate Professor**, June 2016 now
- 3. École Polytechnique Fédérale de Lausanne, Switzerland Ecocloud Visiting Professor, March 2014 July 2014
- 4. Department of Computer Science, University of Crete, Greece **Tenured Assistant Professor,** April 2012 June 2016
- 5. Department of Computer Science, University of Crete, Greece Tenure-track Assistant Professor, October 2009 April 2012
- 6. Institute of Computer Science, Foundation for Research and Technology Hellas (FORTH)

Affiliated Assistant Professor, January 2009 - now

- 7. Department of Computer Science, University of Ioannina, Greece Assistant Professor, April 2008 October 2009
- 8. Department of Computer Science, University of Ioannina, Greece Lecturer, November 2002 March 2008
- 9. Department of Computer Science, University of Ioannina, Greece Visiting Assistant Professor, September 2001 October 2002
- 10. Department of Computer Science, Greek Open University **Teaching and Research Fellow,** Academic year 2001-2002
- 11. Department of Computer Science, University of Toronto, Canada

 Postdoc Researcher, Theory team, March 2001 July 2001. Principal investigator:
 Faith Ellen Fich
- 12. *Max-Planck Institut für Informatik*, Saarbrücken, Germany **Postdoc Researcher**, Research team "Algorithms and Complexity", September 1999

 February 2001. <u>Principal investigator</u>: Kurt Mehlhorn
- 13. Computer Technology Institute, Patras, Hellas

 Graduate Research Assistant, January 1996 August 1999. Principal Investigator:
 Paul Spirakis
- 14. Institute of Computer Science, Foundation of Research and Technology- Hellas (FORTH), Heraklion, Hellas

Undergraduate Trainee, July 1994 – December 1995. <u>Principal investigator</u>: Christos Nikolaou

6. Distinctions and Awards

- 1. **Chair** of the *ACM Europe Council*, October 2019 now.
- 2. ACM SIGACT/SIGOPS Symposium on Distributed Computing (PODC), Member-at-large of the Steering Committee, elected on July 2019 for a two years term.
- 3. *ACM Europe Council*, **Elected Member**, July 2015 June 2019 (first four-years term), July 2019 now (re-elected for a second 4-years term). From July 2017 now she is acting as the **Treasurer** of the Council.
- 4. **ACM Distinguished Speaker**, July 2016 September 2019.
- 5. 20th International Conference on Principles of Distributed Systems (OPODIS'16), **Programme Committee co-Chair** (with Prof. Fernando Pedone, University of Lugano, Switzerland). Also, Member of the Steering Committee, Years: 2017, 2018.

- 6. 19th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS'17), **Programme Committee co-Chair** (with Prof. Sergio Rajsbaum, Universidad Nacional Autonoma de Mexico, Mexico) of track "Distributed Computing and Communication Networks"
- 7. 32nd Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC'13), 2013, **General Chair** (Steering Committee Chair: Andrzej Pelc, Université du Québec, Canada). Also, **Member of the Steering Committee**, Years: 2012, 2013.
- 8. Minerva Informatics Equality Award, Informatics Europe, 2018, Chair of the Evaluation Panel (Other members of the Evaluation Panel: (1) Liliana Cucu, INRIA, France, (2) Susan Eisenbach, Imperial College London, UK, (3) Rachid Guerraoui, EPFL, Switzerland, (4) Patricia Lago, Vrije Universiteit Amsterdam, The Netherlands, (5) Kurt Mehlhorn, Max-Planck-Institut für Informatik, Germany, (6) Dana Petcu, West University of Timisoara, Romania, (7) Assaf Schuster, Technion, Israel).
- 9. Computer Technology Institute, Patras, Hellas, 1999, Best Young Researcher Award
- 10. Greek Mathematical Society, 1990, Prize in the Pan-Hellenic Competition
- 11. Greek Mathematical Society, 1989, Prize in the Pan-Hellenic Competition

7. Editing & Publications

Journal Editing

- JE3. Panagiota Fatourou and Fernando Pedone (Eds.), Special Issue of *Theoretical Computer Science* devoted to the 20th International Conference on Principles of Distributed Systems (OPODIS 2016), in preparation (soon in press).
- JE2. Panagiota Fatourou, Distributed Computing Column, Bulletin of the European Association for Theoretical Computer Science (BEATCS), Editor, January 2009 June 2015.
- JE1. Panagiota Fatourou and Chris Hankin, *Europe Region Special Section Communications of the ACM*, 62(4), ISSN:0001-0782, 2019. Member of the Editorial Board (co-organizer together with Chris Hankin, Imperial College, London), https://cacm.acm.org/magazines/2019/4/235591-welcome-to-the-europe-region-special-section/fulltext and https://cacm.acm.org/videos/europe-region.

Conference Proceedings Editing

- CE3. Panagiota Fatourou, Ernesto Jiménez, and Fernando Pedone (Eds.): 20th International Conference on Principles of Distributed Systems (OPODIS `16), Leibniz International Proceedings in Informatics (ISSN 1868-8969), Madrid, Spain, December 13-16, 2016.
- CE2. Panagiota Fatourou, Gadi Taubenfeld (Eds.): *ACM Symposium on Principles of Distributed Computing (PODC '13)*, Montreal, Canada, July 22-24, 2013. ACM 2013, ISBN 978-1-4503-2065-8.
- CE1. Kunal Agarwal, Panagiota Fatourou, Arnold L. Rosenberg, Frédéric Vivien, *Euro-Par* (2), TOPIC 12: Theory and Algorithms for Parallel Computation, LNCS 6853, 2011.

Book Chapters

- B4. Panagiota Fatourou, Mykhailo Iaremko, Eleni Kanellou, and Eleftherios Kosmas, "Algorithmic Techniques in STM Design", R. Guerraoui and P. Romano (Eds.): Transactional Memory Foundations, Algorithms, Tools, and Applications, Springer Lecture Notes in Computer Science, Vol. 8913, pp. 101-126, 2015.
- B3. Hagit Attiya and Panagiota Fatourou, "Disjoint-Access Parallelism in Software Transactional Memory", R. Guerraoui and P. Romano (Eds.): *Transactional Memory Foundations, Algorithms, Tools, and Applications*, Springer Lecture Notes in Computer Science, Vol. 8913, pp. 72–97, 2015.
- B2. Panagiota Fatourou, Dmytro Dziuma, and Eleni Kanellou, "Consistency for Transactional Memory Computing", R. Guerraoui and P. Romano (Eds.):

- Transactional Memory Foundations, Algorithms, Tools, and Applications, Springer Lecture Notes in Computer Science, Vol. 8913, pp. 3-31, 2015.
- B1. Panagiota Fatourou, "Schedulers for Optimistic Rate-Based Flow Control", *Encyclopedia of Algorithms*, pp. 803-806, Ming-Yang Kao (Ed.), Springer, 2008.

Theses

- T2. Panagiota Fatourou, "Algorithmic Foundations of Rate-Based Flow Control", *PhD Thesis*, Department of Computer Engineering and Informatics, University of Patras, June 1999.
- T1. Panagiota Fatourou, "IMMI: A tool for the graphical representation of a distributed system", *Diploma Thesis*, Department of Computer Science, University of Crete, June 1995.

Articles in Journals

- J15. Victor Bushkov, Dmytro Dziuma, Panagiota Fatourou, Rachid Guerraoui, "The PCL theorem: transactions cannot be parallel, consistent and live", submitted to *Journal of the ACM* (69 pages), Volume 66 Issue 1, January 2019 Article No. 2.
- J14. Panagiota Fatourou, Ioannis Nikolakopoulos, and Marina Papatriantafilou, "Linearizable Wait-free Iteration operations in Shared Double-ended Queues", *Parallel Processing Letters*, Vol. 27, Issue 2, June 2017 (16 pages).
- J13. Panagiota Fatourou and Nikolaos Kallimanis, "Lower and Upper Bounds for Single-Scanner Snapshot Implementations", *Distributed Computing*, Vol. 30, Issue 4, pp 231–260, August 2017 (34 pages).
- J12. Panagiota Fatourou, Eleni Kanellou, Eleftherios Kosmas, Md Forhad Rabbi, "WFR-TM: Wait-Free Readers without Sacrificing Speculation of Writers", *Journal of Parallel and Distributed Computing*, Volume 96, pp. 134–151, October 2016 (18 pages).
- J11. Faith Ellen, Panagiota Fatourou, Eleftherios Kosmas, Alessia Milani, and Corentin Travers, "Universal Constructions that Ensure Disjoint-Access Parallelism and Wait-Freedom", *Distributed Computing*, Vol 29, Issue 4, pp. 251-277, August 2016 (27 pages).
- J10. Panagiota Fatourou and Nikolaos D. Kallimanis, "Highly-Efficient Wait-Free Synchronization", *Theory of Computing Systems* (special issue, invited), Vol. 55, No. 3, pp. 475-520, October 2014 (46 pages).
- J9. Hagit Attiya, Faith Ellen, and Panagiota Fatourou, "The complexity of updating snapshot objects", *Journal of Parallel and Distributed Computing*, Vol. 71, No.

- 12, pp. 1570-1577, December 2011 (8 pages).
- J8. Faith Ellen, Panagiota Fatourou, and Eric Ruppert, "The space complexity of unbounded timestamps", *Distributed Computing*, Vol. 21, No. 2, pages 103-115, July 2008 (13 pages).
- J7. Panagiota Fatourou, Faith Fich and Eric Ruppert, "Time Lower Bounds for Implementations of Multi-Writer Snapshots", *Journal of the ACM*, Vol. 54, No. 6, Article 30, December 2007 (34 pages).
- J6. Panagiota Fatourou, Marios Mavronicolas, and Paul Spirakis, "Max-Min Fair Flow Control Sensitive to Priorities", *Journal of Interconnection Networks*, Vol. 6, No. 2, pp. 85-114, June 2005 (30 pages).
- J5. Panagiota Fatourou, Marios Mavronicolas and Paul Spirakis, "Efficiency of Oblivious versus Non-Oblivious Shedulers for Optimistic, Rate-Based Flow Control", *SIAM Journal on Computing*, Vol. 34, No. 5, pp. 1216-1252, 2005 (37 pages).
- J4. Panagiota Fatourou and Maurice Herlihy, "Read-Modify-Write Networks", *Distributed Computing*, Vol. 17, No. 1, pp. 33-46, February 2004 (14 pages).
- J3. Panagiota Fatourou, "Low-Contention, Depth-First Scheduling of Parallel Computations with Synchronization Variables", *Information & Computation*, accepted (42 pages).
- J2. Panagiota Fatourou and Paul Spirakis, "Efficient Scheduling of Strict Multithreaded Computations", *Theory of Computing Systems Journal (TOCS)*, pp. 173-232, Vol. 33, No. 3, May/June 2000 (60 pages).
- J1. Panagiota Fatourou, Yota Papageorgiou, Vasiliki Petousi: Women are needed in STEM: European policies and incentives. *Communications of the ACM (CACM)*, pp. 52-57, Vol. 62, No. 4, 2019 (invited article).

Submitted papers to journals

- JS3 Botao Peng, Themis Palpanas, and Panagiota Fatourou, "ParIS+: Data Series Indexing on Modern Hardware", submitted to *IEEE Transactions on Knowledge and Data Engineering*, under revision (13 pages).
- JS2. Panagiota Fatourou and Nikolaos D. Kallimanis, "The RedBlue Adaptive Universal Constructions", submitted to *Distributed Computing*, under second round of revision (31 pages).
- JS1. Faith Ellen, Panagiota Fatourou, Joanna Helga, Eric Ruppert, F. van Breugel, "Non-Blocking Binary Search Trees", submitted to the *Journal of the ACM* (69 pages), under revision.

Articles in Conferences

C38. Botao Peng, Panagiota Fatourou, and Themis Palpanas, "MESSI: In-Memory Data Series Indexing", 36th IEEE International Conference on Data Engineering

- (ICDE 2020), Dallas, Texas, April 2020 (to appear).
- C37. Panagiota Fatourou, Elias Papavasileiou, Eric Ruppert, "Persistent Non-Blocking Binary Search Trees Supporting Wait-Free Range Queries", In *Proc. of the 31st ACM SIGACT/SIGARCH Symposium on Parallelism in Algorithms and Architectures* (SPAA 2019), pp. 275-286, Phoenix, USA, June 2019.
- C36. Diego Didona, Panagiota Fatourou, Rachid Guerraoui, Jingjing Wang, and Willy Zwaenepoel, "Distributed Transactional Systems Cannot Be Fast", In *Proc. of the 31st ACM SIGACT/SIGARCH Symposium on Parallelism in Algorithms and Architectures* (*SPAA 2019*), pp. 369-380, Phoenix, USA, June 2019.
- C35. Botao Peng, Panagiota Fatourou, and Themis Palpanas, "ParIS: The Next Destination for Fast Data Series Indexing and Query Answering", *IEEE International Conference on Big Data*, Seattle, WA, USA, December 2018.
- C34. Panagiota Fatourou, Nikolaos D. Kallimanis, and Thomas Ropars, "An Efficient Waitfree Resizable Hash Table", In *Proc. of the 30th ACM Symposium on Parallelism in Algorithms and Architectures* (SPAA '18), pp.111-120, Vienna, Austria, July 2018.
- C33. Panagiota Fatourou and Nikolaos Kallimanis, "Lock Oscillation: Boosting the Performance of Concurrent Data Structures", *Proceedings of the 21st International Conference on Principles of Distributed Systems (OPODIS'17)*, Lisboa, Portugal, December 2017.
- C32. Panagiota Fatourou, Nikolaos Kallimanis, Eleni Kanellou, Odysseas Makridakis, "Efficient Distributed Data Structures for Future Many-core Architectures", *Proceedings of the 22nd International Conference on Parallel and Distributed Systems (ICPADS`16)*, Wuhan, China, December 13-16, 2016.
- C31. Victor Bushkov, Dmytro Dziuma, Panagiota Fatourou, Rachid Guerraoui, "The PCL theorem: transactions cannot be parallel, consistent and live", *Proceedings of the 26th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA'14)*, pp. 178-187, Prague, Czech Republic, June 2014.
- C30. Faith Ellen, Panagiota Fatourou, Joanna Helga, Eric Ruppert, "The amortized complexity of non-blocking binary search trees", *Proceedings of the 33rd Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC'14)*, pp. 332-340, Paris, France, July 2014.
- C29. Panagiota Fatourou, Eleni Kanellou, Eleftherios Kosmas, Md Forhad Rabbi, "WFR-TM: Wait-Free Readers without Sacrificing Speculation of Writers", *Proceedings of the 18th International Conference on Principles of Distributed Systems (OPODIS'14)*, pp. 420-436, Cortina, Italy, December 2014.
- C28. Hillel Avni, Shlomi Dolev, Panagiota Fatourou, Eleftherios Kosmas, "Abort Free SemanticTM by Dependency Aware Scheduling of Transactional Instructions", *Proceedings of the International Conference on NETworked sYStems (NETYS'14)*, pp. 25-40, Marrakech, Morocco, May 2014.
- C27. Faith Ellen, Panagiota Fatourou, Eleftherios Kosmas, Alessia Milani, and Corentin Travers, "Universal Constructions that Ensure Disjoint-Access Parallelism and Wait-Freedom", *Proceedings of the 31st Annual ACM SIGACT*-

- SIGOPS Symposium on Principles of Distributed Computing (PODC'12), pp. 115-124, Madeira, Portugal, July 2012.
- C26. Panagiota Fatourou and Nikolaos D. Kallimanis, "Revisiting the Combining Synchronization Technique", *Proceedings of the 17th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP'12)*, pp. 257-266, New Orleans, USA, February 2012.
- C25. Panagiota Fatourou and Nikolaos D. Kallimanis, ``A Highly-Efficient Wait-Free Universal Construction", *Proceedings of the 23rd Annual ACM Symposium on Parallelism in Algorithms and Architectures (SPAA '11)*, pp. 325-334, San Jose, California, USA, June 2011.
- C24. Faith Ellen, Panagiota Fatourou, Eric Ruppert, and Franck van Breugel, "Non-Blocking Binary Search Trees", *Proceedings of the 29th Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC'10)*, Zurich, Switzerland, July 2010.
- C23. Panagiota Fatourou and Nikolaos Kallimanis, "The RedBlue Adaptive Universal Constructions", *Proceedings of the 23rd International Symposium on Distributed Computing (DISC'09)*, pp. 127-141, Elche, Spain, September 2009.
- C22. Faith Ellen, Panagiota Fatourou, and Eric Ruppert, ``The Space Complexity of Unbounded Timestamps'', *Proceedings of the 21st International Symposium on Distributed Computing (DISC'07)*, pp. 223-237, Lemesos, Cyprus, September 2007.
- C21. Panagiota Fatourou and Nikolaos D. Kallimanis, "Time Optimal, Space-Efficient Single-Scanner, Multi-Writer Snapshots & Efficient Multi-Scanner Snapshots using CAS", *Proceedings of the 26th ACM Symposium on Principles of Distributed Computing (PODC'07)*, pp. 33-42, Portland, Oregon, August 2007.
- C20. Hagit Attiya, Faith Ellen, and Panagiota Fatourou, "The Complexity of Updating Multi-Writer Snapshot Objects", *Proceedings of the 8th International Conference on Distributed Computing and Networking (ICDCN'06)*, Lecture Notes in Computer Science, Vol. 4308, pp. 319-330, Guwahati, India, December 2006.
- C19. Maria Christodoulidou and Panagiota Fatourou, "Simple and Efficient Replication in Chord", *Proceedings of the 18th International Conference on Parallel and Distributed Computing Systems (PDCS'06)*, pp. 214-219, Dallas, Texas, November 2006.
- C18. Panagiota Fatourou and Nikolaos D. Kallimanis, "Single-Scanner Multi-Writer Snapshot Implementations are Fast!", *Proceedings of the 25th Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC'06)*, pp. 228-237, Denver, Colorado, July 2006.
- C17. Panagiota Fatourou, Faith Fich and Eric Ruppert, "Time-Space Tradeoffs for Implementations of Snapshots", *Proceedings of the 38th Annual ACM Symposium on Theory of Computing (STOC'06)*, pp. 169 178, Seattle, WA, May 2006.

- C16. Panagiota Fatourou, Faith Fich, and Eric Ruppert, "A Tight Time Lower Bound for Space-Optimal Implementations of Multi-Writer Snapshots", *Proceedings of the* 35th *Annual ACM Symposium on Theory of Computing (STOC'03)*, pp. 259-268, San-Diego, California, June 2003.
- C15. Panagiota Fatourou, Faith Fich, and Eric Ruppert, "Space-Optimal Multi-Writer Snapshot Objects are Slow", *Proceedings of the 21st ACM Symposium on Principles of Distributed Computing (PODC '02)*, Monterey, California, July 2002.
- C14. Panagiota Fatourou and Maurice Herlihy, ``Adding Networks'', *Proceedings of the 15th International Symposium on DIStributed Computing (DISC '01)*, pp. 330-341, Lisbon, Portugal, October 2001.
- C13. Panagiota Fatourou, "Low-Contention, Depth-First Scheduling of Parallel Computations with Write-Once Synchronization Variables", *Proceedings of the 13th ACM Symposium on Parallel Algorithms and Architectures (SPAA '01)*, pp. 189-198, Crete Island, Greece, July 2001.
- C12. Panagiota Fatourou and Paul Spirakis, "A New Scheduling Algorithm for General Strict Multithreaded Computations", *Proceedings of the 13th International Symposium on DIStributed Computing (DISC'99)*, pp. 297-311, Bratislava, Slovakia, September 1999.
- C11. Panagiota Fatourou, Paul Spirakis, Panagiotis Zarafidis, and Anna Zoura, "Implementation and Experimental Evaluation of Graph Connectivity Algorithms using LEDA", *Proceedings of the 3rd International Workshop on Algorithm Engineering (WAE '99)*, pp. 124-138, London, July 1999.
- C10. Panagiota Fatourou, Marios Mavronicolas, and Paul Spirakis, "Max-Min Fair Flow Control Sensitive to Priorities", *Proceedings of the 2nd International Conference on Principles of Distributed Systems (OPODIS '98)*, pp. 45-59, Amiens, France, December 1998.
- C9. Panagiota Fatourou, Marios Mavronicolas, and Paul Spirakis, "The Global Efficiency of Distributed, Rate-Based, Flow Control Algorithms", *Proceedings of the 5th International Colloquium on Structural Information and Communication Complexity (SIROCCO '98)*, pp. 244-258, Amalfi, Italy, June 1998.
- C8. Panagiota Fatourou, Marios Mavronicolas, and Paul Spirakis, "Efficiency of Oblivious versus Non-Oblivious Shedulers for Optimistic, Rate-Based Flow Control", *Proceedings of the 16th Annual ACM Symposium on Principles of Distributed Computing (PODC '97)*, pp. 139-148, Santa Barbara, California, August 1997.
- C7. Panagiota Fatourou and Paul Spirakis, "Scheduling Algorithms for Strict Multithreaded Computations", *Proceedings of the 7th International Symposium on Algorithms and Computation (ISAAC '96)*, pp. 407-416, Osaka, Japan, December 1996.

Invited Research Articles in Conferences

- C6. Panagiota Fatourou, "Concurrency for the Masses: The Paradigm of Software Transactional Memory", *Proceedings of the 19th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC 2017)*, Timisoara, Romania, Conference Publishing Services, IEEE, September 2017.
- C5. Panagiota Fatourou, Marios Mavronicolas, and Paul Spirakis, "Advances in Rate-Based Flow Control", *Proceedings of the 4th International Colloquium on Structural Information and Communication Complexity (SIROCCO '97)*, Carleton University Press, pp. 266-281, Monte Veritá, Ascona, Switzerland, June 1997.

Brief Announcements in Conferences

- C4. Panagiota Fatourou and Nikolaos D. Kallimanis, "The Power of Scheduling-Aware Synchronization", *Proceedings of the* 28th *International Symposium on DIStributed Computing (DISC'14)*, pp. 533-535, LNCS 8784, Austin, Texas, USA, October 2014.
- C3. Hagit Attiya, Faith Ellen, and Panagiota Fatourou, "The Complexity of Updating Multi-Writer Snapshot Objects", *Proceedings of the 26th ACM Symposium on Principles of Distributed Computing (PODC'07)*, pp. 318-319, Portland, Oregon, August 2007.
- C2. Panagiota Fatourou and Maurice Herlihy, "Adding Networks", *Proceedings of the 20th Annual ACM Symposium on Principles of Distributed Computing (PODC '01)*, pp. 308-310, New-Port, Rhode Island, August 2001.
- C1. Panagiota Fatourou, Marios Mavronicolas, and Paul Spirakis, "The Global Efficiency of Distributed, Rate-Based, Flow Control Algorithms", *Proceedings of the 17th Annual ACM Symposium on Principles of Distributed Computing (PODC'98)*, p. 311, Puerto Vallarta, Mexico, June/July 1998.

Workshops

- W7. Victor Bushkov, Dmytro Dziuma, Panagiota Fatourou, and Rachid Guerraoui, "Snapshot Isolation Does Not Scale Either", 5th Workshop on the Theory of Transactional Memory (WTTM'13), Jerusalem, Israel, October 2013.
- W6. Faith Ellen, Panagiota Fatourou, Eleftherios Kosmas, Alessia Milani, and Corentin Travers, "Wait-Free Universal Constructions that ensure Timestamp-Ignoring Disjoint-Access Parallelism", 5th Workshop on the Theory of Transactional Memory (WTTM'13), Jerusalem, Israel, October 2013.
- W5. Shlomi Dolev, Panagiota Fatourou, and Eleftherios Kosmas, "Abort Free SemanticTM by Dependency Aware Scheduling of Transactional Instructions", 8th ACM SIGPLAN Workshop on Transactional Computing (TRANSACT), Houston, TX, USA, March 2013, also presented at the Euro-TM Workshop on

- Transactional Memory (WTM'13), Prague, Czech Republic, April 14, 2013 and at the 5th Workshop on the Theory of Transactional Memory (WTTM'13), Jerusalem, Israel, October 2013.
- W4. Faith Ellen, Panagiota Fatourou, Eleftherios Kosmas, Alessia Milani, Corentin Travers, "A Wait-Free Disjoint Access Parallel Universal Construction", *1st Euro-TM Workshop on Distributed Transactional Memory (WDTM'12)*, Lisbon, February 2012.
- W3. Panagiota Fatourou, Mykhailo Iaremko, Eleftherios Kosmas and George E. Papadakis, "Reducing contention in STM", 4th Workshop on the Theory of Transactional Memory (WTTM 2012), Madeira, Portugal, July 2012.
- W2. Faith Ellen, Panagiota Fatourou, Eleftherios Kosmas, Alessia Milani, Corentin Travers, "On Disjoint-Access Parallelism", 3rd Workshop on the Theory of Transactional Memory (WTTM'11), Rome, Italy, September 2011.
- W1. Panagiota Fatourou and Nikolaos D. Kallimanis, "Highly-Efficient Combining-Based Synchronization", 3rd Workshop on the Theory of Transactional Memory (WTTM'11), Rome, Italy, September 2011.

Other Articles

- O4. Panagiota Fatourou and Chris Hankin: Welcome to the Europe Region Special Section, *Communications of the ACM*, Vol:62, ISSN:0001-0782, p. 30, 2019.
- O3. Dmytro Dziuma, Panagiota Fatourou, and Eleni Kanellou "Consistency for Transactional Memory Computing", *Bulletin of the EATCS*, Vol. 113, June 2014 (25 pages).
- O2. James Aspnes, Costas Busch, Shlomi Dolev, Panagiota Fatourou, Chryssis Georgiou, Alex Shvartsman, Paul Spirakis, and Roger Wattenhofer, "Eight open problems in distributed computing", *Bulletin of the European Association for Theoretical Computer Science*, Vol. 90, pp. 109-126, October 2006.
- O1. Panagiota Fatourou, "The DISC 2001 Conference", *Distributed Computing Column, SIGACT News*, pp. 46-53, Vol. 33, No. 1, March 2002.

8. List of coauthors

Professors and Senior Researchers

- Kunal Aggrawal, Associate Professor, Department of Computer Science and Engineering, Washington University in St Louis, USA.
- Hagit Attiya, Professor, Department of Computer Science, *Technion*, Israel (The Harry W. Labov and Charlotte Ullman Labov Academic Chair).
- Costas Busch, Professor, Department of Computer Science and Engineering, Louisiana State University, USA.

- **Shlomi Dolev**, Professor, Rita Altura Trust Chair Professor, Computer Science Department, *Ben-Gurion University of the Negev*, Israel.
- Faith Ellen, Professor, Department of Computer Science, *University of Toronto*, Canada
- **Chrysis Georgiou**, Associate Professor, Department of Computer Science, *University of Cyprus*, Cyprus.
- Rachid Guerraoui, Professor, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland.
- Chris Hankin, Professor, *Imperial College London*, UK.
- **Danny Hendler**, Associate Professor, Computer Science Department, *Ben-Gurion University of the Negev*, Israel.
- Maurice Herlihy, Professor, Department of Computer Science, *Brown University*, USA.
- Ernesto Jimenez, Associate Professor, *Technical University of Madrid*, Spain.
- Marios Mavronicolas, Professor, Department of Computer Science, *University of Cyprus*, Cyprus.
- Alessia Milani, Associate Professor, *ENSEIRB-MATMECA*, Bordeaux, France.
- **Themis Palpanas**, Professor, *Paris Descartes University*, France.
- Giota Papageorgiou, Professor, *University of Crete*, Greece.
- Marina Papatriantafilou, Associate Professor, Department of Computer Science and Engineering, *Chalmers University*, Sweden.
- Fernando Pedone, Professor, Department of Informatics, *University of Lugano*, Switzerland.
- Vassiliki Petousi, Associate Professor, *University of Crete*, Greece.
- Michel Raynal, Professor, *University of Rennes 1*, France.
- **Sergio Rajsbaum**, Professor, Instituto de Matematicas, *Universidad Nacional Autonoma de Mexico (UNAM)*, Mexico.
- Thomas Ropars, Assistant Professor, *Université Grenoble Alpes*, France.
- Arnold L. Rosenberg, Professor, Computer Science Department, *University of Massachusetts Amherst*, USA.
- Eric Ruppert, Associate Professor, Department of Electrical Engineering and Computer Science, *York University*, Canada.
- Stefan Schmid, Professor, Department of Computer Science, *University of Vienna*, Austria.
- Alexander Schwartzmann, Professor, Dean of the School of Computer and Cyber Sciences, *Augusta University*, Georgia, USA.
- Paul G. Spirakis, Professor, Department of Computer Science, *University of Liverpool*, UK.

- **Gadi Taubenfeld**, Professor, *Interdisciplinary Center*, Herzliya, Israel.
- Corentin Travers, Associate Professor, *ENSEIRB-MATMECA*, Bordeaux, France.
- Franck van Breugel, Professor, Department of Electrical Engineering and Computer Science, *York University*, Canada.
- Frédéric Vivien, Permanent Researcher, *INRIA*, France.
- Roger Wattenhofer, Professor, Department of Electrical Engineering, ETH Zurich, Switzerland.
- Willy Zwaenepoel, Professor, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland (currently Dean of the Faculty of Engineering and Information Technologies, *University of Sydney*, Australia).

Students, Postdocs and Early Stage researchers

(See Section 12 for more details on the students supervised by P. Fatourou and their research achievements.)

- Nikolaos D. Kallimanis (University of Ioannina and FORTH ICS, Greece)
- Eleftherios Kosmas (University of Crete, Greece)
- Eleni Kanellou (University of Rennes 1, France and FORTH ICS, Greece)
- Dmytro Dziuma (FORTH ICS, Greece)
- Md Forhad Rabbi (FORTH ICS, Greece)
- Jingjing Wang (EPFL, Switzerland)
- Diego Didona (EPFL, Switzerland)
- Victor Bushkov (EPFL, Switzerland)
- Elias Papavasileiou (University of Crete, GReece)
- Mykhailo Iaremko (FORTH ICS, Greece)
- Odysseas Makrydakis (FORTH ICS, Greece)
- Ohad Ben-Baruch (University of Ben Gurion, Israel)
- Panagiotis Zarafidis (University of Patras, Greece)
- Botao Peng (Paris Descartes University, France)
- Yannis Nikolakopoulos (Chalmers University, Sweden)
- Joanna Helga (York University, Canada)
- Anna Zoura (University of Patras, Greece)
- Christi Symeonidou (FORTH ICS, Greece)

9. Participation in Program Committees

- 1. 21st International Conference on Distributed Computing and Networking (*ICDN* 2020), **Member of the Technical Program Committee**, Distributed Computing Track
- 2. 38th ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC 2019), Member of the Program Committee
- 3. 23rd ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP 2018), Member of the Extended Review Committee
- 4. 19th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS'17), Co-Chair of Program Committee for track "Distributed Computing and Communication Networks"
- 5. 36th ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC 2017), Member of the Program Committee
- 6. 20th International Conference on Principles of Distributed Systems (OPODIS'16), Co-Chair of the Program Committee
- 7. 30th International Symposium on Distributed Computing (DISC 2016), Paris, France, September 2016, **Member of the Program Committee**
- 8. 18th International Symposium on Stabilization, Safety, and Security of Distributed Systems (*SSS 2016*), Lyon, France, November 2016, **Member of the Program Committee**
- 9. 11th ACM SIGPLAN Workshop on Transactional Computing (Transact'16), Barcelona, Spain, March 2016, Member of the Program Committee
- 10. 4th International Conference on NETworked Systems (NETYS'16), Rabat, Morocco, May 2016, **Member of the Program Committee**
- 11. 19th International Conference on Principles of Distributed Systems (OPODIS'15), Rennes, France, December 2015, **Member of the Program Committee**
- 12. Ad Hoc Now Workshop, Athens, Greece, July 2015, Member of the Program Committee for the Special Track on "Distributed Computing with Mobile Agents"
- 13. 6th Workshop on the Theory of Transactional Memory (WTTM'14), Paris, France, July 2014 (in conjunction with PODC'14), Member of the Program Committee
- 14. 33rd ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC'14), Paris, July 2014, **Member of the Program Committee**
- 15. 41st International Colloquium on Automata, Languages and Programming (ICALP'14), 2014, Member of the Program Committee
- 16. 9th Workshop on Transactional Computing (TRANSACT'14), Salt Lake City, Utah, USA, March 2014, Member of the Program Committee

- 17. 32nd ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (*PODC'13*), July 22-24, Montreal, Canada, 2013, **Member of the Program Committee**
- 18. 14th International Conference on Distributed Computing and Networking (ICDCN'13), Mumbai, India, January 3-6, 2013, Member of the Program Committee
- 19. 5th Workshop on the Theory of Transactional Memory (WTTM'13), Jerusalem, Israel, October 2013, Member of the Program Committee
- 20. 2012 International Conference on Parallel Processing, for the track "Algorithm design and parallelism" (ICPP'12), Pittsburgh, PA, September 10-13, 2012, Member of the Program Committee
- 21. 29th Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC'10), Zurich, Switzerland, July 2010, Member of the Program Committee
- 22. IEEE International Parallel and Distributed Processing Symposium (IPDPS'10), Algorithms Track, Atlanta, Georgia, April 2010, Member of the Program Committee
- 23. International Conference on Parallel and Distributed Computing and Networks (PDCN'10), Innsbruck, Austria, February 2010, Member of the Program Committee
- 24. 20th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA'08), Munich, Germany, June 2008, Member of the Program Committee
- 25. 26th Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC'07), Portland, Oregon, USA, August 2007, Member of the Program Committee
- 26. International Conference on Parallel and Distributed Computing and Networks (PDCN'07), Innsbruck, Austria, February 2007, Member of the Program Committee
- 27. International Conference on Parallel and Distributed Computing and Networks (PDCN'06), Innsbruck, Austria, February 2006, Member of the Program Committee
- 28. 9th International Conference on Principles of Distributed Systems (OPODIS'05), Pisa, Italy, December 2005, Member of the Program Committee
- 29. 19th International Symposium on Distributed Computing (**DISC'05**), Krakow, Poland, September 2005, **Member of the Program Committee**
- 30. IADIS Multi-conference on Computer Science and Information Systems, (MCCSIS'05), 2005, Member of the Program Committee
- 31. International Conference on Parallel and Distributed Computing and Networks (PDCN'05), Innsbruck, Austria, February 2005, Member of the Program Committee

- 32. 23rd Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (**PODC'04**), St. John's, Newfoundland, Canada, **Member of the Program Committee**
- 33. 9th IEEE International Conference on Parallel and Distributed Systems (ICPADS'02), Taiwan, December 2002, Member of the Program Committee
- 34. 15th International Symposium on DIStributed Computing (**DISC'01**), Lisbon, Portugal, October 2001, **Member of the Program Committee**
- 35. 14th International Symposium on DIStributed Computing (**DISC'00**), Toledo, Spain, October 2000, **Member of the Program Committee**
- 36. 7th International Conference on High Performance Computing (**HiPC'00**), Bangalore, India, December 2000, **Member of the Program Committee**

10. Scientific Activities

Editorial

1. Distributed Computing Column, Bulletin of the European Association for Theoretical Computer Science (BEATCS)

Editor, January 2009 – June 2015

Chairing

1. Euro-Par, Topic 12: Theory and Algorithms for Parallel Computation, Bordeaux, France, 2011.

Vice Chair (General Chair: Arnold L. Rosenberg)

2. 7th Workshop on the Theory of Transactional Memory (WTTM'15), July 2015 (in conjunction with PODC 2015)

Program Committee co-Chair (together with Prof. Paolo Romano, INESC-ID, University of Lisbon, Portugal)

Participation in other Committees

- 1. *HiPEAC European Network on High Performance and Embedded Architecture and Compilation*, **Member of the Collaboration Grants Review Committee**, June 2016
- 2. International European Conference on Parallel and Distributed Computing (Euro-Par), Member of the Advisory Board, 2011- now (http://www.uni-passau.de/Europar_ab_liste.html)
- 3. 2nd *ACM-Europe Summer School*, Athens, Greece, July 2018, **Member of the Programme Committee**
- 4. 1st *ACM-Europe Summer School*, Athens, Greece, July 2017, **Member of the Programme Committee**

5. HiPEAC - European Network on High Performance and Embedded Architecture and Compilation, Member of the Collaboration Grants Review Committee, June 2016

Organization of Conferences, Workshops, Summits

- 1. 7th Workshop on the Theory of Transactional Memory (WTTM'15), Donostia-San Sebastián, Spain, July 2015 in conjuction with PODC'15
- 2. 6th Workshop on the Theory of Transactional Memory (WTTM'14), Paris, France, July 2014 in conjuction with PODC'14
- 3. 5th Workshop on the Theory of Transactional Memory (WTTM'13), Jerusalem, Israel, October 2013 in conjuction with DISC'14, Organization co-chair (with Alessia Milani, University of Bordeaux, France, and Paolo Romano, INESC-ID, Portugal)
- 4. 31st Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (**PODC'12**), Madeira Island, Portugal, 2012, **Treasurer** (Steering Committee Chair: Andrzej Pelc)
- 5. 4th Workshop on the Theory of Transactional Memory (WTTM'12), Madeira, Portugal, October 2012 in conjuction with PODC'12, Organization co-chair (with Vincent Gramoli, EPFL, Switzerland, Alessia Milani, University of Bordeaux, France, and Paolo Romano, INESC-ID, Portugal)
- 6. 28th Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (**PODC'09**), Calgary, Alberta, Canada, **Awards Chair**, August 2009
- 7. 24th Annual ACM SIGACT-SIGOPS Symposium on Principles Of Distributed Computing (**PODC'05**), Las Vegas, Nevada, USA, **Publicity co-chair** with Danny Hendler (Department of Computer Science, University of Toronto), July 2005.
- 8. 23rd Annual ACM SIGACT-SIGOPS Symposium on Principles Of Distributed Computing (**PODC'04**), St. John's, Newfoundland, Canada, **Publicity co-chair** with Victor Luchango (Sun Microsystems Labs), July 2004.
- 9. 12th International Symposium on DIStributed Computing (**DISC'98**), Andros, Greece, **Local Arrangements & Publicity co-chair** with Paul Spirakis (University of Patras, Hellas & Computer Technology Institute, Patras, Hellas) and Lefteris Kirousis (University of Patras & Computer Technology Institute), September 1998.
- 10. 1st Summit on Gender Equality in Computing (*GEC'19*), Athens, Greece, June 2019. **Chair of the Organizing and Programme Committee** (with Maria Roussou, University of Athens, and Georgia Koutrika (research director), Athena Research Center, Greece). The Summit was organized by the Greek ACM-W Chapter that P. Fatourou chairs.
- 11. ACM-W Europe womENcourage Celebration of Women in Computing (womENcourage'17), Barcelona, Spain, September 2017, Chair of the Supporters Programme
- 12. ACM-W Europe womENcourage Celebration of Women in Computing (womENcourage'16), Linz, Austria, September 2016, Poster Session Chair

13. ACM-W Europe womENcourage Celebration of Women in Computing (womENcourage'15), Uppsala, Sweden, September 2015, (1) Judge of Hackathon, (2) Paper Session Chair, (3) Discussion Leader of a discussion session (unconference

Organization of Schools

- 1. 1st Summer School on Women in Science, Technology, Engineering and Mathematics (WISTEM 2019), July 1-3, Department of Computer Science, University of Crete, 2019, Scientific Director and Chair of the Organizing Committee
- 2. TransForm School on Research Directions in Distributed Computing (SRDC 2013), Heraklion, Greece, June 10-14, 2013, **Organizing Committee Chair**
- 3. Transactional Memory (TM) track at the MSR Cambridge PhD Summer School 2012. Microsoft Research in Cambridge, U.K. July 2012, **Organization co-Chair** (together with Tim Harris)
- 4. *TransForm Initial Training School*, Rennes, France, 2011, **Organization co-Chair** (together with Michel Raynal), February 2011
- 5. 1st Max-Planck Advanced Course on the Foundations of Computer Science, Saarbrücken, Germany, **Member of the Organizing Committee**, August-September 2000

Journal Referee and External Reviewing

She has repeatedly acted as a referee for the most prestigious journals and as an external reviewer for numerous conferences in her field.

Other Professional Activities

- 1. **Founder and Chair** of the *Greek ACM Women Chapter* (now listing more than 170 members including almost all Greek female professors in Computer Science and related Departments of the Greek Universities, as well as researchers, people from the industry and other computing professionals), July 2018 now.
- 2. **Member** of the **Executive Committee** (**Treasurer**) of the *ACM Europe Council*
- 3. **Member** of the *ACM Women Europe Raise & Wise Committee*, January 2019 now.
- 4. **Member** of the *ACM Women Europe Executive Committee*, September 2016 December 2018.
- 5. **Member** of the *ACM Committee of European Chapter Leaders (CECL*), September 2017 now.
- 6. Chair of ACM Women Europe National Contacts Programme, 2017.
- 7. **Chair** of the ACM Women Europe Connections Programme, 2017.

11. Teaching Record

1. École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Ecocloud Visiting Professor, March 2014 – July 2014. Mini Seminar taught: Concurrent Computing

2. University of Crete, Department of Computer Science, Hellas

Assistant Professor. Courses taught:

Data Structures (undergraduate core): Fall 2008, Fall 2009, Spring 2011, Fall 2011, Spring 2013, Fall 2013, Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019

The material of this course has been fully digitalized and the lectures have been videotaped (in the context of the Open Courses project of the University of Crete).

- Principles of Distributed Computing (selective undergraduate): Spring 2016,
 Spring 2017, Spring 2018, Spring 2019
- Distributed Computing (graduate): Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2013, Spring 2015

The material of this course has been fully digitalized (in the context of the Open Courses project of the University of Crete).

- <u>Distributed Systems (graduate)</u>: Spring 2010, Spring 2011, Spring 2012
- 3. University of Ioannina, Department of Computer Science, Greece

Assistant Professor (April 2008-October 2009), Lecturer (November 2002 – March 2008) and Visiting Assistant Professor (September 2001 – October 2002). Courses taught:

- <u>Data Structures</u> (core undergraduate): Fall 2001, Fall 2002, Fall 2003, Fall 2005, Fall 2006, Fall 2007
- Operating Systems (core undergraduate): Spring 2002, Spring 2003, Spring 2004, Spring 2005
- <u>Distributed Computing</u> (graduate): Spring 2004, Winter 2004, Spring 2006, Spring 2007, Spring 2008, Spring 2009
- <u>Distributed Systems</u> (undergraduate): Spring 2002, Winter 2004, Spring 2006, Spring 2007, Spring 2008, Spring 2009
- 4. University of Ioannina, Department of Arts, Greece

Visiting Assistant Professor. Course taught:

- Multimedia (core undergraduate): Winter 2002.
- 5. Greek Open University, Department of Computer Science, Greece

Teaching and Research Fellow, Academic year 2001-2002. Courses taught:

- Software Technology
- Data Structures
- Operating Systems
- 6. **University of Saarland**, Department of Computer Science, Saarbrücken, Germany *Teaching Fellow*, October 2000- February 2001. Graduate course taught (in collaboration with Berthold Voecking and Uli Mayer):
 - WS00/01: Advanced Algorithms and Data Structures for Different Models of Computation
- University of Patras, Department of Computer Engineering and Informatics, Greece *Teaching Assistant*, January 1996-January 1999. Courses assisted:
 Operating Systems I (core undergraduate): Winter 1996, Winter 1997, Winter 1998

 Operating Systems II (core undergraduate): Spring 1995, Spring 1996, Spring 1997.
- 8. University of Crete, Department of Computer Science, Hellas

Teaching Assistant, September 1995 – November 1995; course assisted:

• <u>CS 241: C, Assembly, Unix</u> (core undergraduate)

12. Student Supervision

PhD Thesis Supervision

- 1. <u>Eleftherios Kosmas</u>, September 2008 March 2015, PhD Thesis: "Techniques for Enhancing Parallelism in Mechanisms that Automatically Execute Sequential Code in Concurrent Environments", Department of Computer Science, University of Crete.
- 2. <u>Eleni Kanellou</u>, June 2011 December 2015 (co-supervisor together with Prof. Michel Raynal), University of Rennes I, France.
- 3. <u>Nikolaos Kallimanis</u>, October 2007 June 2013, PhD Thesis: "Efficient Synchronization Techniques", Department of Computer Science, University of Ioannina.

Early Stage Researchers

In the context of the Marie-Curie Initial Training Network called TransForm, which Panagiota Fatourou coordinated, she worked with early-stage researchers and published a collection of papers in collaboration with them.

Briefly, the Marie Curie Initial Training Networks aim to improve the career perspectives of early-stage researchers (ESR) who are in the first five years of their research career. Specifically, ESRs are defined as those who are, at the time of selection by the host

institution, in the first four years of their research careers. This is measured from the date when they obtained the degree which would formally entitle them to embark on a doctorate, irrespective of whether or not a doctorate is envisaged. Thus, an ESR requires similar supervision and advising as a PhD student.

Panagiota Fatourou has worked with the following ESRs and has published the following papers in collaboration with them:

- 1. <u>Dmytro Dziuma:</u> Early Stage Researcher of project TransForm, May 2012 October 2013
 - V. Bushkov, D. Dziuma, P. Fatourou, and R. Guerraoui, "The PCL theorem: transactions cannot be parallel, consistent and live", accepted (after minor revision) to *Journal of the ACM* (69 pages).
 - V. Bushkov, D. Dziuma, P. Fatourou, and R. Guerraoui, "The PCL theorem: transactions cannot be parallel, consistent and live", *Proceedings of the 26th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA'14)*, pp. 178-187, Prague, Czech Republic, June 2014.
 - V. Bushkov, D. Dziuma, P. Fatourou, and R. Guerraoui, "Snapshot Isolation Does Not Scale Either", 5th Workshop on the Theory of Transactional Memory (WTTM'13), Jerusalem, Israel, October 2013.
 - Panagiota Fatourou, Dmytro Dziuma and Eleni Kanellou, "Consistency for Transactional Memory Computing", R. Guerraoui and P. Romano (Eds.): *Transactional Memory Foundations, Algorithms, Tools, and Applications*, Springer LNCS 8913, pp. 3-31, 2015 (book chapter).
 - D. Dziuma, P. Fatourou, and E. Kanellou, "Consistency for Transactional Memory Computing", *Bulletin of the EATCS*, Vol. 113, June 2014 (25 pages).
- 2. <u>Mykhailo Iaremko:</u> Early Stage Researcher of project TransForm, November 2011 October 2012
 - Panagiota Fatourou, Mykhailo Iaremko, Eleni Kanellou and Eleftherios Kosmas, "Algorithmic Techniques in STM Design", R. Guerraoui and P. Romano (Eds.): *Transactional Memory Foundations, Algorithms, Tools, and Applications*, Springer LNCS 8913, pp. 101-126, 2015 (book chapter).
 - P. Fatourou, M. Iaremko, E. Kosmas and G. E. Papadakis, "Reducing contention in STM", 4th Workshop on the Theory of Transactional Memory (WTTM 2012), Madeira, Portugal, July 2012.
- 3. <u>Forhad Rabbi:</u> Early Stage Researcher of project TransForm, February 2012 October 2013
 - Panagiota Fatourou, Eleni Kanellou, Eleftherios Kosmas, Md Forhad Rabbi, "WFR-TM: Wait-Free Readers without Sacrificing Speculation of Writers", *Journal of Parallel and Distributed Computing* (25 pages).
 - Panagiota Fatourou, Eleni Kanellou, Eleftherios Kosmas, Md Forhad Rabbi, "WFR-TM: Wait-Free Readers without Sacrificing Speculation of Writers",

- Proceedings of the 18th International Conference on Principles of Distributed Systems (OPODIS'14), pp. 420-436, Cortina, Italy, December 2014.
- 4. <u>Armihtamassebi Kasra:</u> Early Stage Researcher of project TransForm, January 2013 September 2013
 - D. Dziuma, P. Fatourou, E. Kanellou, and Amirtahmasebi Kasra, "Survey on consistency conditions", FORTH-ICS TR 439, December 2013.

Master Thesis Supervision

- 1. <u>Elias Papavasileiou</u>, "Concurrent Binary SearchTrees: Implementation and Experimental Evaluation", Department of Computer Science, University of Crete, January 2018 July 2019.
- 2. <u>Nikolaos Mpatsaras</u>, "Indexing Data Structures for Key-Value Stores", Department of Computer Science, University of Crete, September 2017 September 2019.
- 3. <u>Eleftherios Kosmas</u>, "Software Transactional Memory", February 2007 September 2008, Department of Computer Science, University of Ioannina.
- 4. <u>Maria Christodoulidou.</u> "Data Management in P2P systems", February 2006 September 2008, Department of Computer Science, University of Ioannina.
- 5. <u>Nikolaos Kallimanis</u>, "Shared Data Structures", September 2006 October 2007, Department of Computer Science, University of Ioannina.

Diploma Thesis Supervision

- Department of Computer Science, University of Crete
 - 1. Nikos Kantas, "Lock-Free Garbage Collectors", January 2019 now.
 - 2. Maria Dialyna, "Lock-Free Concurrent Indices for Big Collections of Data Series", June 2019 now.
 - 3. Angela Mpraoudaki, "Concurrent Priority Queues: Implementation and Experimental Evaluation", January 2019 now.
 - 4. <u>Maria Xekalaki</u>, "Range queries in Tree-like Data Structures", September 2015 June 2016.
 - 5. Odyseas Makridakis, "Design and Implementation of Distributed Data Structures based on Formic Board", September 2014 July 2015
 - 6. <u>Giorgos Papadakis</u>, "Experimental Analysis of Software Transactional Memory Systems", September 2011 September 2012
 - 7. <u>Karolos Antoniadis</u>, "Design and Analysis of Efficient Thread Synchronization Protocols", September 2011 June 2012
- Department of Computer Science, University of Ioannina
 - 8. <u>Christos Bournazis</u>, "Experimental Evaluation of Distributed Algorithms", September 2006-June 2007.

- 9. Stavrina Tsourou, "Distributed Hash Tables", September 2005 September 2006.
- 10. Nikolaos Kallimanis, "Distributed Shared Objects", September 2004 June 2005.
- 11. <u>Frosini Kouri</u>, "Distributed Storage and Retrieval in P2P Systems", September 2004 September 2006.
- 12. <u>Maria Christodoulidou.</u> "Data Management in P2P systems", September 2003 December 2004.
- Department of Computer Engineering and Informatics, University of Patras
 - 13. <u>George Mourkousis.</u> "Beyond Counting Networks", September 1998 May 1999, co-supervised with Paul Spirakis
 - 14. <u>Vassilis Tsivourakis</u>. "Bandwidth Allocation Protocols", September 1998 May 1999, co-supervised with Paul Spirakis

Practical Training Supervision

Foundation for Research and Technology – Hellas, Institute of Computer Science

- 1. <u>Vouidaskis Charalampos</u> (student at the Department of Computer Engineering and Informatics, University of Patras, Greece), "Implementation in C and Experimental Evaluation of a concurrent binary search tree", March 2019 May 2019.
- 2. <u>Marina Giannaraki</u> (student at School of Electrical and Computer Engineering, Technical University of Crete), "From DSTM to SI-DSTM", October 2017.
- 3. <u>Nikolaos Mpatsaras</u> (student at Department of Mathematics, University of Crete), "Experimental Analysis of distributed hash tables", June 2016 September 2016.
- 4. <u>Evangelos Mageiropoulos</u> (student at School of Electrical and Computer Engineering, Technical University of Crete), "Simulation of network protocols", July 2016 September 2016.

Supervision of other Students and young researchers that worked in research projects

- Foundation for Research and Technology Hellas, Institute of Computer Science
 - 1. <u>Christi Symeonidou</u>, MSc on Computer Science, University of Crete. Participation in the working team of FORTH ICS project GreenVM.
 - 2. <u>Charidimos Kiosterakis</u>, BSc on Mathematics, University of Crete. "Analysis of a Highly-Scalable Concurrent Hash Table", January 2016 December 2016.
- University of Crete, Department of Computer Science
 - 1. <u>Myrwn Tsatsarakis</u>, "Design, Implementation and Experimental Evaluation of Concurrent Data Structures", 2018.

- 2. <u>Manos Giortamis</u>, "Design and Implementation of Concurrent Graphs", 2018 (in collaboration with Nikolaos Kallimanis, FORTH ICS).
- 3. <u>Panagiotis Karouzakis</u>, "Implementation and Experimental Evaluation of Efficient Synchronization Mechanisms", June 2018.
- 4. <u>Angela Braoudaki</u>, "Implementation and Experimental Evaluation of Concurrent Stacks and Queues", June 2016 December 2017.
- 5. <u>Alexandros Rasidakis</u>, undergraduate student, Department of Computer Science, University of Crete. "Task-parallel runtime systems", June 2015 September 2017.
- 6. <u>Christina Tousia</u>, undergraduate student, Department of Computer Science, University of Crete. "Concurrent data structures for indexing very large time series collections", April 2016 April 2017.
- 7. <u>Kalliopi Polychronaki</u>, undergraduate student, Department of Computer Science, University of Crete. "Concurrent data structures for indexing very large time series collections", April 2016 April 2017.
- 8. <u>George Kostakis</u>, undergraduate student, Department of Computer Science, University of Crete. "Memory Management Algorithms", April 2016 November 2017.
- 9. <u>George Kalyvianakis</u>, undergraduate student, Department of Computer Science, University of Crete. "Memory Management Algorithms", April 2016 September 2017.
- 10. <u>Chrisostomos Maragoulis</u>, undergraduate student, Department of Computer Science, University of Crete. «Hybrid runtime systems», June 2015 June 2016.
- 11. <u>Kalliopi Meladaki</u>, undergraduate student, Department of Mathematics, University of Crete. «Monitoring of Heterogeneous Streams», May 2015 January 2016.
- 12. <u>Parthena Batsina</u>, undergraduate student, Department of Computer Science, University of Crete. «Algorithms for External Memory», October 2013 February 2014.
- Computer Technology Institute, Patras
 - 1. <u>Anna Evlogimenou</u>. Worked on the implementation of a distributed shared memory frame.
 - 2. <u>Panagiotis Zarafidis</u>. Worked on the implementation of a dynamic graph connectivity algorithm.
 - 3. <u>Anna Zoura.</u> Worked on the implementation of a dynamic graph connectivity algorithm.

Participation in Doctoral Dissertation Committees

- 1. Kjell Windbland, "Dynamic Adaptations of Synchronization Granularity in Concurrent Data Structures", University of Uppsala, Sweden, September 2018 (PhD Advisor: Kostantinos Sagonas).
- 2. Margariti Spiridoula, "Analysis, Modelling and Simulation of Search in Complex Dynamic Networks", University of Ioannina, May 2017 (PhD Advisor: Vassilios Dimakopoulos).
- 3. Antonella del Pozo, "Building Distributed Computing Abstractions in the Presence of Mobile Byzantine Failures", Università degli studi di Roma "La Sapienza" Dipartimento di Ingegneria Informatica, February 2017 (PhD Advisors: Maria Potop Butucaru and Silvia Bonomi).
- 4. <u>Nikos Chondros</u>, "Byzantine fault-Tolerant vote collection for D-DEMOS, a distributed e-voting system", Department of Informatics and Telecommunications, University of Athens, September 2016 (PhD Advisor: Mema Roussopoulos).
- 5. <u>Foivos Zakkak</u>, "JavaTM on Scalable Memory Architectures" Department of Computer Science, University of Crete, September 2016 (PhD Advisors: Angelos Bilas and Polyvios Pratikakis).
- 6. <u>Spyros Agathos</u>. Department of Computer Science, University of Ioannina, May 2016 (PhD Advisor: Vassilios Dimakopoulos). Member of the PhD Advisory Committee.
- 7. <u>Darko Petrovich</u>, "Efficient Communication and Synchronization on Many-core Processors", THÈSE N 6552, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, March 2015 (PhD Advisor: Prof. Andre Schipper)
- 8. <u>Yannis Nikolakopoulos</u>, "Concurrency Aware Shared Memory Data Structures", Department of Computer Science and Engineering, Chalmers University of Technology, Sweden, May 2014 (PhD Advisor: Marina Papatriantafilou). Role: Panagiota Fatourou was the Licentiate Discussion Leader.
- 9. <u>Damien Imbs</u>, "Calculability and progress conditions of distributed objects in shared memory", IRISA, University of Rennes I, France, April 2012 (PhD Advisor: Prof. Michel Raynal).
- 10. <u>Vassilis D. Papaefstathiou</u>, "Architectural Support for Software-Guided Energy Reduction of Manycore Communication", Department of Computer Science, University of Crete, December 2013 (PhD Advisor: Manolis Katevenis).
- 11. <u>Spyros Lyberis</u>, "Myrmics: A Scalable Runtime System for Global Address Spaces", Department of Computer Science, University of Crete, July 2013 (PhD Advisor: Dimitris Nikolopoulos).
- 12. <u>Stamatis Kavadias</u>, "Direct Communication and Synchronization Mechanisms in Chip Multiprocessors", Department of Computer Science, University of Crete, December 2010 (PhD Advisor: Manolis Katevenis).
- 13. <u>Vangelis Lappas</u>. Department of Computer Science, University of Ioannina, March 2010- now (PhD Advisor: Vassilios Dimakopoulos). Member of the PhD Advisory Committee.

14. <u>Spiridoula Margariti</u>. Department of Computer Science, University of Ioannina, June 2007 – now (PhD Advisor: Vassilios Dimakopoulos). Member of the PhD Advisory Committee.

Participation in Master Thesis Examination Committees

- 1. Kostantinos Drakwnakis, "Exploring the Privacy Implications of Location (Meta)Data in Public Data Streams", Computer Science Department, University of Crete, October 2018 (Advisor: Sotiris Ioannidis).
- 2. <u>Eirini Degleri</u>, "Study of the SSL certificates and their revocation model", Computer Science Department, University of Crete, February 2018 (Advisor: Evangelos Markatos).
- 3. <u>Eva Papadogiannaki</u>, "Efficient Software Packet Processing on Heterogeneous Hardware Architectures", Computer Science Department, University of Crete, July 2017, (Advisors: Evangelos Markatos and Sotiris Ioannidis).
- 4. <u>Dimitris Giannopoulos</u>, "Max-Min Fair Rate Regulation without Keeping per-Flow State", Computer Science Department, University of Crete, October 2017 (Advisors: Manolis Katevenis and Vassilis Papaefstathiou).
- 5. <u>Pavlos Katsogridakis</u>, "Execution of Recursive Queries in Apache Spark", Computer Science Department, University of Crete, November 2016 (Advisors: Polyvios Pratikakis and Angelos Bilas)
- 6. <u>Nikolaos Papakonstantinou</u>, «Combining Recursively Parallel Runtimes with Blocked-based Dependence Analysis», Department of Computer Science, University of Crete, June 2015 (Advisors: Aggelos Bilas and Polyvios Pratikakis).
- 7. <u>Evangelos Ladakis</u>, «GPU-Disasm: A GPU-based x86 Disassembler», Department of Computer Science, University of Crete, October 2015 (Advisor: Evangelos Markatos).
- 8. <u>Charis Kourdounakis</u>, «Subscription Indexes for Web Syndication Systems», Department of Computer Science, University of Crete. Advisor: Vassilis Christofidis
- 9. <u>Spiridoula Margariti</u>, «Search in Peer-To-Peer Systems», June 2006 March 2006. Department of Computer Science, University of Ioannina. Advisor: Vassilios Dimakopoulos
- 10. <u>Ioannis Petrakis</u>, "Using Histograms for Building and Querying Workload-Aware Small-Worlds in Peer-to-Peer Systems", September 2001 July 2002, Department of Computer Science, University of Ioannina. Advisor: Evangelia Pitoura

Participation in Diploma Thesis Examination Committees

- 1. <u>Eleftherios Kosmas and Spiridon Agathos.</u> Department of Computer Science, University of Ioannina, September 2004 September 2005. Advisor: Evangelos Papapetrou.
- 2. <u>Ioannis Kanellos</u>. Department of Computer Science, University of Ioannina, September 2002 December 2003. Advisor: Dimitrios Fotiadis
- 3. <u>Georgia Kastidou</u>. Department of Computer Science, University of Ioannina, September 2001 July 2002. Advisor: Evangelia Pitoura
- 4. <u>Panagiotis Papapetrou</u>. Department of Computer Science, University of Ioannina, September 2002 June 2003. Advisor: Dimitrios Fotiadis
- 5. <u>Ioannis Petrakis</u>. Department of Computer Science, University of Ioannina, September 2001 July 2002. Advisor: Evangelia Pitoura
- 6. <u>Konstantinos Stefanidis</u>. Department of Computer Science, University of Ioannina, September 2002 September 2003. Advisor: Evangelia Pitoura

13. Proposal Evaluation for the European Commission (Expert contracts)

- 1. Expert Contract, Contract Number: CT-EX2015D255299-102, Horizon 2020 Work Programme 2017-2018, May 2017
- 2. Expert Contract, Contract Number: CT-EX2015D255299-101, Horizon 2020 Work Programme 2016-2017, May 2016
 - P. Fatourou has also been asked to serve as an expert evaluator for the EC ICT-05-2017 and H2020-MSCA-ITN-2018 calls. However, she declined because either she submitted a proposal to that call or she could not be in Brussels the requested dates.

14. Evaluation for the Greek Secretariat for Research and Technology

- 1. Hellenic Foundation for Research and Innovation (ELIDEK), General Secretariat for Research and Technology (GSRT), Greece, Expert reviewer of PhD scholarship applications, February-March 2017.
 - P. Fatourou has been invited to serve as an expert evaluator for the post-doc scholarship applications (call 2017) but she had to decline the invitation due to other obligations.

15. Participation in Research and Development Projects

1. **Project Name:** EuroExa: European co-design for exascale applications

Funding Source: European Commission – Horizon 2020

Duration: September 2017 – March 2021 **Participation period:** 1/1/2018 – now

Role: Member of the research team of the project, Laboratory of Computer

Architecture and VLSI Systems, Computer Technology Institute, FORTH

2. **Project Name:** ASAP: A Scalable Analytics Platform

Funding Source: European Commission - RTD project (FP7)

Duration: 1/3/2014– 28/2/2017

Participation period: 1/6/2016 – 28/2/2017

Role: Member of the research team of the project, Laboratory of Computer Architecture and VLSI Systems, Computer Technology Institute, FORTH – Study of

distributed containers for the SPARK analytics engine

3. **Project Name:** ExaNest: European Exascale System Interconnect and Storage **Funding Source:** European Commission – FET-HPC project (Horizon 2020)

Duration: 1/12/2015 – 30/11/2018 **Participation period:** 1/6/2016 – now

Role: Member of the research team of the project, Laboratory of Computer Architecture and VLSI Systems, Computer Technology Institute, FORTH – Study of communication and synchronization requirements of current emerging HPC applications, as well as of optimized communication and synchronization mechanisms to run on top of the ExaNest technology

4. **Project Name:** ExaNode: European Exascale Processor & Memory Node Design **Funding Source:** European Commission – FET-HPC project (Horizon 2020)

Duration: 1/10/2015 - 30/9/2018 **Participation period:** 1/1/2016 - now

Role: Member of the research team of the project, Laboratory of Computer Architecture and VLSI Systems, Computer Technology Institute, FORTH – Communication and synchronization algorithms for UNIMEM architectures of type PGAS (Partitioned Global Address Space)

5. **Project Name:** GreenVM: Energy-Efficient Runtimes for Scalable Multicore Architectures

Financing Source: GSRT-ESPA (ARISTEIA Action of the OPERATIONAL PROGRAMME EDUCATION AND LIFELONG LEARNING, co-funded by the European Social Fund (ESF) and National Resources).

Duration (from – to): October 2012 – September 2015

Participation Period (from - to): October 2012 – now

Role: Member of the research team of the project, coordinator of "WP 2: Library support for power-efficient data structures"

Description: GreenVM aims at developing the techniques and tools required towards programming languages, runtime systems and language virtual machines that is

specifically tailored for low power consumption in future many-core architectures which will not support cache coherent memories, without sacrificing the ease of programming and fast development times of such a high-level language. We will implement our results into a functional Java Runtime Environment and power-efficient data-structure libraries tailored for a partially-coherent manycore architecture. Specifically, we will provide a collection of highly-efficient synchronization primitives and concurrent data structures taking into consideration locality issues, as a power efficient version of the Java concurrency utility package for such architectures. We will furthermore extend the architecture with power-aware metrics and counters, and use these extensions to evaluate the energy efficiency of our system.

6. Project Name: TransForm: Theoretical Foundations of Transactional Memory

Financing Source: European Commission – Marie Curie Action: Initial Training Network

Duration (from – to): 1/11/2009 - 31/10/2013

Participation Period (from - to): 1/11/2009 – 31/10/2013

Role: Coordinator of the project

Description: Transactional Memory (TM) is a new programming paradigm which is considered by most researchers as the future of parallel programming. A lot of work is being devoted to the implementation of TM systems, in hardware or solely in software. What might be surprising is the little effort devoted so far to devising a sound theoretical framework to reason about the TM abstraction. To understand properly TM systems as well as be able to assess them and improve them, a rigorous theoretical study of the approach, its challenges and its benefits is badly needed. This is the challenging research goal undertaken by this MC-ITN. The main goal of this project is to gather leading researchers in the field of concurrent computing over Europe, and combine their efforts in order to define what might become the modern theory of concurrent computing. It aims at training a set of graduate students in this direction with the hope that these students will help Europe become a leader in concurrent computing.

7. Project Name: Transactional Memories: Foundations, Algorithms, Tools, and Applications (Euro-TM, IC1001)

Funding Source: European Commission – COST Action

Duration: 2/2011 - 1/2015

Participation Period: 2/2011 - 1/2015

Role: Greece Representative to the Action – Member of the management committee

Description: Parallel programming (PP) used to be an area once confined to a few niches, such as scientific and high-performance computing applications. However, with the proliferation of multicore processors, and the emergence of new, inherently parallel and distributed deployment platforms, such as those provided by cloud computing, parallel programming has definitely become a mainstream concern. Transactional Memories (TMs) answer the need to find a better programming model for PP, capable of boosting developers' productivity and allowing ordinary programmers to unleash the power of parallel and distributed architectures avoiding

the pitfalls of manual, lock based synchronization. It is therefore no surprise that TM has been subject to intense research in the last years. This action aims at consolidating European research on this important field, by coordinating the European research groups working on the development of complementary, interdisciplinary aspects of Transactional Memories, including theoretical foundations, algorithms, hardware and operating system support, language integration and development tools, and applications.

8. Project Name: Herakleitos II: Reinforcement Programme of Human Research Manpower

Financing Source: Herakleitos II: Reinforcement Programme of Human Research

Manpower - General Secretariat of Research & Technology (GSRT)

Duration: 9/2010 – 8/2013

Participation Period: 9/2010 – 3/2015

Role: Advisor of the PhD student that undertook the research project

9. **Project Name:** Open University Courses

Financing Source: GSRT-ESPA

Duration: 2012 – 2015

Role: Instructor of the course HY240 which has been fully digitalized; Instructor of the course HY586 which has been partially digitalized.

10. **Project Name:** European Network of Excellence on High Performance and Embedded Architecture and Compilation (HIPEAC II and III)

Financing Source: European Commission – Network of Excellence (FP7)

Duration: 2008 – 2016

Description: HiPEAC's mission is to steer and increase the European research in the area of high-performance and embedded computing systems, and stimulate cooperation between a) academia and industry and b) computer architects and tool builders.

Role: Member of the network, 2010 - now.

11. Project Name: CumuloNimbo – A Highly Scalable Transactional Multi-Tier Platform as a Service

Funding Source: European Commission - STREP project (FP7)

Duration: 10/2010 –9/2013

Participation Period: 2/2011 – October 2013

Role: Participation to the project's working team of the Computer Architecture and VLSI Systems Lab, Institute of Computer Science, Foundation for Research and Technology –Hellas – Contribution to the study of the consistency of such systems.

Description: CumuloNimbo is a European project funded by the European Commission under the 7th Programme Framework (FP7) that targets to obtain a highly scalable transactional platform as a service (PaaS). One of the innovations will

be attaining scalability without trading off consistency as it is the norm in today's PaaS.

12. Project Name: STREAM – Scalable Autonomic Streaming Middleware for Real-

Time Processing of Massive Data Flows

Funding Source: European Commission – STREP project (FP7)

Duration: 2/2008 –1/2011

Participation Period: 6/2009 – 31/1/2011

Role: Participation to the project's working team of the Computer Architecture and VLSI Systems Lab, Institute of Computer Science, Foundation for Research and Technology –Hellas – Study of existing data flow computing systems.

Description: A growing number of applications requires the ability to analyze massive amounts of streaming data in real-time. Examples of such applications are: market data feed processing of the output of large scale ad-hoc networks, etc. The project aims at providing a highly scalable cloud computing platform to enable a new breed of services.

13. Project Name: MOMENT – Monitoring and Measurement in the Next Generation Technologies

Funding Source: European Commission – STREP project (FP7)

Διάρκεια: 1/2008 – 6/2010

Participation Period: 1/2009 – 6/2009

Role: Participation to the project's working team of the Distributed Systems Computing Lab, Institute of Computer Science, Foundation for Research and Technology –Hellas – Production of a survey on the Analysis of Network Traffic Streams.

Description: This project aimed at integrating existing network measurement and monitoring infrastructures towards a common and open, pan-European platform.

14. Project Name: ENCORE – Enabling technologies for programmable manycores

Funding Source: European Commission – FP7

Duration: 3/2010 - 2/2013

Participation Period: 3/2010 - now

Role: Participation to the project's working team of the Computer Architecture and VLSI Systems Lab, Institute of Computer Science, Foundation for Research and Technology –Hellas – Contribution to the design and analysis of concurrent data structures for modern mulitcore systems.

Description: ENCORE focuses on runtime management of parallelism and data locality for future heterogeneous many-core processors.

15. Project Name: Design and Analysis of Concurrent Data Structures

Financing Source: Research Committee, University of Ioannina

Duration (from – to): 1/9/2007 – 31/8/2009

Participation Period (from - to): 1/9/2009 - now

Role: Faculty member, Department of Computer Science, University of Ioannina

Description: The purpose of the project is the design and analysis of fundamental concurrent data structures with the main emphasis on snapshot objects.

16. Project Name: Operational Programme for Education and Initial Vocational Training (EPEAEK)

Financing Source: Ministry of National Education and Religious Affairs

Duration (from – to): 1/1/2003 - 31/12/2005 **Participation Period (from - to):** 1/1/2003 - now

Role: Faculty Position, Department of Computer Science, University of Ioannina

Description: The purpose of the project is the re-design and upgrade of the undergraduate and graduate programme of studies of the Department of Computer Science at the University of Ioannina. Participation at the following work packages:

- α. Phase U1 Re-design of the undergraduate programme of studies: U.1.1. Study of Objectives.
- β. Phase U3 Evaluation of the undergraduate programme of studies: U.1.3. Design of the Evaluation System.
- γ . Phase M3 Evaluation of the graduate programme of studies: M.1.3 Design of the Evaluation System.

17. Project Name: Metro – Research and teaching on distributed computing and networking.

Financing Source: Greek Secretariat of Research and Technology (program **ENTEP**)

Duration: 24 months (academic years 2002-2003 and 2003-2004)

Participation Period: The project has been approved by the GSRT but it was withdrawn by the participants (Panagiota Fatourou and Leandros Tassiulas) due to the appointment of Panagiota Fatourou as a faculty member of the Department of Computer Science of the University of Ioannina.

Role: Invited researcher from abroad **Scientific Director:** Leandros Tassiulas

18. **Project Name: Long-Duration European Research Project ESPRIT #20244** – **ALCOM-**IT (Algorithms and COMplexity on Information Technology), Computer Technology Institute, Patras.

Financing Source: European Union **Duration:** 01/01/1996 – 30/6/1999

Participation Period: 01/01/1996 – 30/6/1999

Role: Junior Researcher, Computer Technology Institute, Patras

Description: Participation to the following work packages of the project:

- α. W.P. 1.1, LEDA (Library of Efficient Data Structures and Algorithms)
 Implementation of dynamic graph connectivity algorithms.
- β. W.P. 2.1, FRAMES

Design and implementation of a software library for the simulation of distributed shared memory.

γ. W.P. 4.1, PAROS (PARallel Operating Systems)

Design and implementation of efficient scheduling algorithms for multi-threaded computations.

19. Project Name: Pilot network of the schools of Achaia, Computer Technology Institute, Patras.

Financing Source: Achaia's Perfecture **Duration:** 01/01/1996 - 31/12/1996

Participation Period: 01/01/1996 – 31/12/1996

Role: Junior Researcher, Computer Technology Institute, Patras

Description: Design of networking applications for educational purposes.

20. Project Name: RU-1 Odyssey, Computer Technology Institute

Financing Source: Ministry of National Education and Religious Affairs

Duration: 01/01/97 – now

Participation Period: 01/01/1997 – 31/7/1997

Role: Junior Researcher, Computer Technology Institute, Patras

Description: Design and implementation of networking education software.

21. Project Name: European Project Training Educators through Networks and

Distributed Systems (TRENDS), Computer Technology Institute.

Financing Source: European Union **Duration:** 01/01/96 – 31/01/98

Participation Period: 01/08/1997 – 31/12/1997

Role: Junior Researcher, Computer Technology Institute, Patras

Description: Design of distance education software.

22. Project Name: Greek Parliament Information System

Financing Source: Greek Parliament

Duration: 01/01/96 – 31/12/96

Participation Period: 01/01/96 – 31/12/96

Role: Junior Researcher, Computer Technology Institute, Patras

Description: Design of the information system of the Greek Parliament.

16. Lectures – Seminars - Presentations

Invitations to Research Seminars and other Scientific Events (where attendance is by invitation)

1. Dagstuhl Seminar 17451 – New Challenges in Parallelism, November 2017

- 2. Dagstuhl Seminar 15021 Concurrent computing in the many-core era, January 2015
- 3. Dagstuhl Seminar 13081 Consistency in Distributed Systems, February 2013
- 4. Dagstuhl Seminar 12161 Abstractions for scalable multi-core computing, April 2012
- 5. Dagstuhl Seminar 08241 Transactional Memory: From Implementation to Application, June 2008
- 6. Summer school on Practice and Theory of Concurrent Computing, Saint-Petersburg, 2017
- 7. BIRS Workshop 12w5122 Probabilistic versus Deterministic Techniques for Shared Memory Computation, February 2012

Lectures as an ACM Distinguished Speaker

- 1. ACM Celebration of Women in Computing: Ada Lovelace Celebration, Uppsala, November 2017. Lecture title: "Harnessing the Difficulties of Synchronization".
- 2. 19th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC'17), "Concurrency for the Masses: The paradigm of Software Transactional Memory"
- 3. South-East European University, Tetovo, FYROM, February 23, 2017. Lecture title: "Concurrency for the Masses: The paradigm of Transactional Memory".
- 4. Ss. Cyril and Methodius University Skopje, FYROM, February 24, 2017. Lecture Title: "Harnessing the Difficulties of Synchronization"

Invited Lectures in Schools

Prof. Fatourou was an invited speaker at the following schools:

- 6th School on Hot Topics in Distributed Computing (HTDC 2013), La Plagne, France, February 2013, Lecture title: "Theory results in Transactional Memory".
- *ACM Celebration of Women in Computing: Ada Lovelace Celebration*, Uppsala, November 2017. Lecture title: "Harnessing the Difficulties of Synchronization".

Invited Lectures in Conferences

- 19th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC'17), Timisoara, Romania, September 2017. Lecture Title: "Concurrency for the Masses: The paradigm of Software Transactional Memory"
- Combinatorial and Global Optimization Conference, Chania, Crete, May 1998. Lecture Title: "Priority, Max-Min Flow Control, Sensitive to Traffic Levels"

Other Lectures – Seminars

- 1. York University, Department of Electrical Engineering and Computer Science, Canada, July 2019. Lecture Title: "Concurrent Search Trees Supporting Complex Queries".
- 2. Paris Descartes University, Computer Science Department, France, June 2019. Lecture Title: "Concurrent Search Trees Supporting Complex Queries".
- 3. Dagstuhl Seminar 17451 New Challenges in Parallelism, Warden, November 2017. Lecture Title: "Efficient Distributed Data Structures for Future Many-Core Architectures"
- 4. *South-East European University*, Tetovo, FYROM, February 23, 2017. Lecture title: "Concurrency for the Masses: The paradigm of Transactional Memory".
- 5. Ss. *Cyril and Methodius University Skopje*, FYROM, February 24, 2017. Lecture Title: "Harnessing the Difficulties of Synchronization"
- 6. National Technical University of Athens, School of Electrical and Computer Engineering, December 2016. Lecture Title: "Disjoint Access Parallelism in Software Transactional Memory Computing".
- 7. *Paris Descartes University*, Computer Science Department, France, September 2016. Lecture Title: "Harnessing the Difficulties of Synchronization".
- 8. National and Kapodistrian University of Athens, Department of Informatics and Telecommunications, September 2015. Lecture Title: "Efficient Design Techniques for Concurrent Data Structures".
- 9. *Chalmers University*, Department of Computer Science and Engineering, Sweden, May 2014. Lecture Title: "Highly-Efficient Concurrent Data Structures".
- 10. École Polytechnique Fédérale de Lausanne (EPFL), April 2014. Lecture Title: "Highly-Efficient Concurrent Data Structures".
- 11. *Technion*, Israel, July 2011. Lecture Title: "Highly-Efficient Synchronization Techniques".
- 12. Foundation for Research and Technology, Institute of Computer Science, Crete, March 2008. Lecture Title: "Snapshot Objects".
- 13. Foundation for Research and Technology, Institute of Computer Science, Crete, November 2007. Lecture Title: "Concurrent Data Structures".
- 14. University of Ioannina, July 2007. Lecture Title: "Current Research on Atomic Snapshots".
- 15. Computer Science Department, University of Toronto, Canada, July 2006. Lecture Title: "Single-Scanner Multi-Writer Snapshot Implementations are Fast!"
- 16. Foundation for Research and Technology, Institute of Computer Science, Crete, November 2005. Lecture Title: "Concurrent Objects Multithreaded Computations".
- 17. *University of Ioannina*, April 2002. Lecture Title: "Concurrent Objects with emphasis on adding networks and atomic snapshots".

- 18. *Max-Planck Institut für Informatik (MPII), Saarbrücken, Germany*, September 1999 February 2000. Participation in four series of lectures at MPII. Lectures Titles:
 - "Distributed Computing Algorithms and Impossibility Results", November 2000.
 - "Scheduling Multithreaded Computations", November 2000.
 - "Thread Scheduling for Multiprogrammed Multiprocessors", July 2000.
 - "Scheduling Algorithms for Strict Multithreaded Computations", September 1999.
- 19. University of Patras, January 1996 August 1999. Participation in three series of lectures of the Department of Computer Engineering and Informatiks. Talk Titles:
 - "A New Scheduling Algorithm for Strict Multithreaded Computations", May 1999.
 - "Algorithmic Foundations of Rate-Based Flow Control", April 1999.
 - "Max-Min Fair Flow Control", May 1998.
 - "Optimal Optimistic Algorihtms for Rate-Based Flow Control", August 1997.
- 20. *University of Cyprus*, September 1997. Lecture Title: "Modern Trends in Theory of Rate-Based Flow Control".
- 21. *University of Paderborn*, December 1996. Lecture Title: "Efficient Scheduling of Multithreaded Computations".

17. Administration Work

Member of the following committees of the Department of Computer Science, University of Crete:

- Scientific Director of the Practical Training Programme, March 2016 now
- Chair of the evaluation committee for graduate admission, October 2017
- Chair of the evaluation committee for graduate admission, April 2018
- Coordination Committee for the Graduate Studies, 2016 now
- Course Recognition Committee, September 2014 now
- Committee for releasing all materials and for the declaration of the compliance of all works, year 2016.
- Contest jury and Committee for the supervision and taking over of works, Registration numbers: 6105/5-6-2012 (member), 4866/13-7-2012 (alternate member)
- Coordination Committee for the Graduate Studies, October 2010 September 2014
- Committees for the supervision and taking over of works, Registration Numbers: 9624/17-12-2012 (member), 9965/19-12-2013 (alternate member), 9959/19-12-2013 (member), 1510/7-2-2013 (member)
- Evaluation committee for graduate admission, April 2010
- Evaluation committee for graduate admission, October 2009

■ Real Estate Registry Committee (alternate member), academic years: 2013-2014, 2014-2015

Member of the following committees of the Department of Computer Science, University of Ioannina:

- Recruiting and evaluation committee for adjunct faculty positions, September 2006
- Recruiting and evaluation committee for adjunct faculty positions, June 2006
- Evaluation committee for graduate studies applications, Winter semester, Academic year 2006-2007
- Recruiting and evaluation committee for adjunct faculty positions, January 2006 coordinator
- Committee for the Department's facilities, September 2005 now
- Coordination Committee for the Graduate Studies, November 2003 February 2006
- *Undergraduate Studies Committee*, October 2003 September 2005
- Real Estate Registry Committee, October 2003 September 2005
- Seminar Committee, November 2002 September 2003
- Committee of Practical Training, November 2002 September 2003