

Curriculum Vitae

Personal Information

Full Name: Vicky Papadopoulou - Lesta
Birth Date: 7/4/1975
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Education

- January 2001 – June 2003: **Doctorate Diploma (Ph.D)**, Department of Computer Engineering and Informatics, University of Patras, Greece.
 - Thesis title: “The Frequency Assignment Problems: Algorithms and Complexity”, Advisor: Professor Paul Spirakis.
- September 1998 – January 2001: **Master Diploma (M.Sc)**, Applications and Foundations of Computer Science Sector, Department of Computer Engineering and Informatics, University of Patras, Greece.
 - Thesis title: “Algorithmic Issues in Wireless and Mobile Networks: The Frequency Assignment Problem”, Advisor: Professor Paul Spirakis.
- September 1993 – July 1998: **Diploma (BSc)**, Department of Computer Engineering and Informatics (Bachelor), University of Patras, Greece.
 - Diploma project: “Control Problems in Mobile Networks”, Advisor: Professor Paul Spirakis, Diploma degree: 8.

Research Interests

- **Research Interest Area:** Algorithms and Complexity
- **Research Fields:** Computational Complexity, Algorithms, Approximation, Combinatorial and Randomized Algorithms, Graph Theory, Algorithmic Game Theory, Combinatorics, Distributed Computation, Communication in Wireless Networks, Probability Theory, Resource Allocation Problems, Mobile Computing.
- **Applications:** Network Security, Network Services, Facility Location problems, Communication in Wireless Networks, Patrolling safe environments, Frequency Assignment in Wireless Networks.

Faculty Appointments

- October 2008 - today: **Assistant Professor**, Department of Computer Science and Engineering, European University Cyprus, Cyprus.
- January 2007 - June 2007: **Visiting Lecturer**, Department of Computer Science, University of Cyprus.
- September 2003 - February 2004: **Visiting Lecturer**, Department of Pharmacy, University of Patras, Greece.

Research Appointments

- May 2004 - September 2008: **Post-Doctorate Researcher**, Research Laboratory for Foundations of Computing Systems and Theoretical Computer Science, Department of Computer Science, University of Cyprus.
- July 2003 - May 2004: **Post-Doctorate Researcher**, Research Academic Computer Technology Institute (R.A.C.T.I), Research Unit I (Foundations of Computer Science, Relative Technologies and Applications), Patras, Greece.
- September 1998 - June 2003: **Research and Development Engineer**, R.A.C.T.I, Research Unit I (Foundations of Computer Science, Relative Technologies and Applications), Patras, Greece.

Teaching and Advisory Experience

- October 2008 – today: Assistant Professor, Department of Computer Science and Engineering, European University Cyprus, Cyprus. **Instructor** of the courses:
 - **Theory of Computation** – CSC401 (core course)
 - **Data Structures and Algorithms** - CSC205 (core course)
 - **Algorithms** - CSC407 (core course)
 - **Graph Theory** - CSC450 (elective course)
 - **Programming Languages** - CSC323 (core course)
 - **Computer Fundamentals and Applications** - CSC190 (general elective course).
- Spring Semester 2006-2007: Visiting Lecturer, Department of Computer Science, University of Cyprus, Nicosia, Cyprus. **Instructor** of course:
 - **Theory of Computation and Complexity** - CS211 (core course).
- Winter semester 2003-2004: Visiting Lecturer, Department of Pharmacy, University of Patras, Patras, Greece. **Instructor** of course:

- **Informatics.**
- **Teaching Assistant:** Department of Computer Engineering and Informatics, University of Patras, Patras, Greece, for the following undergraduate and postgraduate courses:
 - **Distributed Systems I** (1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002–2003, basic selection, 4o year, undergraduate)
 - **Distributed Systems II** (1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002–2003, free selection, 4o year, undergraduate)
 - **Distributed Systems Laboratory I, II** (1998 – 1999)
 - **Theory of Efficient Approximation Algorithms I** (2001-2002, 2002-2003, postgraduate)
- **Advisor or co-advisor** for the senior (B.Sc. diploma) projects of
 - more than 20 students in the Department of Computer Science & Engineering, European University, Cyprus
 - 2 students in the Department of Computer Science of University of Cyprus, Cyprus.

Research Projects Participation

- AGT, January 2006 - December 2007. *"Algorithmic Game Theory"*, Research Promotion Foundation, Nicosia, Cyprus and French Leading Agency for International Mobility, Paris, France - Joint Program of Scientific and Technological Collaboration between France and Cyprus.
- AEOLUS, September 2005 - August 2008. *"Algorithmic Principles for Building Efficient Overlay Computers"*, European Commission, Research Directorate, Future and Emerging Technologies Unit (FET), 6th Framework Programme on Research, Technological Development and Demonstration, Information Society Technologies Program (IST), Integrated Project.
- DELIS, January 2004-Today. *"Dynamically Evolving, Large-Scale Information Systems"*, European Commission, Research Directorate, FET/IST Integrated Project. FLAGS, May 2004-December 2004: *"Foundational Aspects of Global Computing Systems"*, EU/IST/FET/Global Computing Proactive Initiative, European Union.
- CRESCCO, June 2003-January 2005: *"Critical Resource Sharing for Cooperation in Complex Systems"*, IST project, European Union.
- ARACNE, 2000-2003: *"Approximation and Randomized Algorithms in Communication Networks"*, RTN project, European Union.

- ALCOM-FT, 2000-2003: “*Algorithms and Complexity in Future Technologies*”, IST project, European Union.
- ALKAD, 1999-2001: “Algorithms for Mobile and Wireless communication Networks, design, analysis, implementation and experimental testing of efficient algorithms for problem in wireless communication environments”.
- RPP, 1998-2001: “*Risk Planning Process*”, BRITE-EURAM project, European Union.
- INTERREG II, Greece-Italy, 1999-2001: *Creation of a Telematics Centre in Western Greece*. Ministry of National Economy, Greece.
- ALCOM-IT, 1998-1999: “*Algorithms and Complexity in Information Technology*”, European Union, ESPRIT Project.

Professional Activities

Organizing Committees

- *2nd International Symposium on Algorithmic Game Theory (SAGT 2009)*, October 18--20, 2009, Paphos, Cyprus.
 - **Organizing Committee Chair.**

Referee for:

- *International conferences:*
 - 33rd Annual ACM Symposium on Theory of Computing (STOC 2001), ESA02, ESA06 10th, 16th Annual European Symposium on Algorithms (ESA 2002, ESA 2006), 28th, 29th International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2002, WG 2003), 22rd Annual ACM Symposium on Principles of Distributed Computing (PODC 2002), 30th, 32th, 33rd, 38th International Colloquium on Automata, Languages and Programming (ICALP2002, ICALP 2004, ICALP 2005, ICALP 2011), 28th, 29th International Symposium on Mathematical Foundations of Computer Science (MFCS 2003, MFCS 2004), IEEE Global Telecommunications Conference 2005, 6th International Conference on Algorithms and Complexity (CIAC 2006), 6th, 8th International Conference on Algorithms and Complexity (SPAA 2005, SPAA 2007), 3rd, 4th International Symposium on. Algorithmic Game Theory (SAGT2010, SAGT2011).
- *Scientific Journals:*
 - WINET journal, Theoretical Computer Science, International Journal of Computer Mathematics.

Distinctions

- *Distinguished paper*: D. A. Fotakis, S. E. Nikolettseas, V. G. Papadopoulou and P. G. Spirakis, "NP-completeness Results and Efficient Approximations for Radiocoloring in Planar Graphs" in *Proceedings of the 25th Mathematical Foundations of Computer Science (MFCS 2000)*, Bratislava, Slovakia, August 28 - September 1, 2000.
- *Fellowship* in Postgraduate M.Sc. Diploma, Department of Computer Engineering and Informatics, University of Patras, Greece, 1999 – 2000.

Invited Talks

- Working Group Seminar on "Algorithmic Game Theory", Faculty of Electrical Engineering, Computer Science and Mathematics University of Paderborn, Paphos, Cyprus, March 2nd, 2007. Talk title: "Network Security Games: One and Many Defenders".
- Joint Scientific Workshop on "Algorithmic Game Theory and Grid Computing", Department of Computer Science, University of Cyprus & Faculty of Electrical , Engineering, Computer Science and Mathematics University of Paderborn, Paphos, Cyprus, March 3rd, 2006. Talk title: "A network Security Game with Attackers and a Defender".
- Department of Computer Science, University of Bonn, Germany. Invitation by Professor Marek Karpinski, July 2003. Talk title: "Radiocolorings in Periodic Planar Graphs: PSPACE-Completeness and Efficient Approximations for the Optimal Range of Frequencies".
- COMPSTRU meeting (Discrete Mathematics Theoretical Computer Science and Applications), V. DIMATIA/ITI Graph Theory Day, Prague: Combinatorial Structure of Intractable Problems, March 12, 2001. Talk title: "On Radiocoloring Hierarchically Specified Planar Graphs: PSPACE-completeness and Approximations".

Professional Affiliations

- Member of Association for Computing Machinery (ACM)
- European Association for Theoretical Computer Science (EATCS)

Languages

- Fluent in English

Publications List

Editorials

1. M. Mavronicolas and V. G. Papadopoulou (**Editors**), *Proceedings of the 2nd International Symposium on Algorithmic Game Theory 2009 (SAGT 2009)*, Springer in its LNCS series (Lecture Notes in Computer Science), Volume 5814.

Refereed Book Chapters or Articles in Encyclopaedias

1. J. Antoniou, V. G. Papadopoulou, V. Vassiliou, A. Pitsillides, “**Network Selection and Handoff in Wireless Networks: a Game Theoretical Approach**”, *Game Theory for Wireless Communications and Networking*, Yan Zhang, Mohsen Guizani, Eds., CRC Press, 9781439808894, 2011.
2. A. Gregoriades and V. Papadopoulou Lesta, “**Nonfunctional Requirements Validation Using Nash Equilibria**”, *Management and Services*, ISBN 978-953-7619-X-X, Accepted, July 2011.
3. M. Mavronicolas, V. G. Papadopoulou and P. G. Spirakis, “**Algorithmic Game Theory and Applications**”, Chapter 10 in *Handbook of Applied Algorithms: Solving Scientific, Engineering, and Practical Problems*, A. Nayak and I. Stojmenovic eds., John Wiley and Sons, A. Nayak and I. Stojmenovic eds., John Wiley and Sons, pp 287-316, March 2008.
4. V. Papadopoulou, “**Radiocoloring in Planar Graphs**”, *Encyclopedia of Algorithms*, Ming-Yang Kao eds., Springer, ISBN-10: 0387307702, 2008.

Refereed Journal Papers

1. J. Antoniou, V. Papadopoulou, V. Vassiliou, A. Pitsillides “**Cooperative User Network Interactions in Next Generation Communication Networks**”, Elsevier *Computer Networks*, Volume 54, Number 13, pp. 2239-2255, September 2010.
2. V. Papadopoulou and M. Mavronicolas, “**A State-of-the-Art Catalog of Complexity Classes with Problems of Equilibrium Computation**”, *Bulletin of the European Association for Theoretical Computer Science*, September 2009.
3. M. Mavronicolas, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, “**A Graph-Theoretic Network Security Game**”, *International Journal of Autonomous and Adaptive Communications*, Special Issue on “Algorithmic Game Theory”, R. Kannan and C. Busch eds., Vol. 1, No.4 pp. 390 – 410, 2008.
4. M. Mavronicolas, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, “**A Network Game with Attacker and Protector Entities**”, *Algorithmica*, Special Issue with selected papers from the 16th Annual International Symposium on

Algorithms and Computation (ISAAC 2005), X. Deng and D. Du guest eds, Vol. 51, No. 3, pp. 315-341, July 2008.

5. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou and P. G. Spirakis, **"Radiocolorings in Periodic Planar Graphs: PSPACE-Completeness and Efficient Approximations for the Optimal Range of Frequencies"**, *Journal of Discrete Algorithms*, Vol. 4, No. 3, pp. 433-454, December 2006.
6. V. G. Papadopoulou, **"A Game on a Distributed Network"**, *Bulletin of the European Association for Theoretical Computer Science*, No 89, pp. 97–116, June 2006.
7. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou, P. G. Spirakis, **"Radiocoloring in Planar Graphs: Complexity and Approximations"**, *Theoretical Computer Science*, Vol. 340, pp. 514-538, Elsevier, August 2005.
8. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou, P. G. Spirakis, **"Hardness Results and Efficient Approximations for Frequency Assignment Problems and the Radio Coloring Problem"**, *Bulletin of the European Association for Theoretical Computer Science*, Vol. 75, pp. 152-181, October 2001.
9. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou and P. G. Spirakis, **"Hardness Results and Efficient Approximations for Frequency Assignment Problems: Radio Labelling and Radio Coloring"**, *Journal of Computers and Informatics*, Vol. 20, No. 2, pp. 121-180, 2001.

Journals Under Revision

1. M. Mavronicolas, B. Monien, V. G. Papadopoulou, **"How Many Attackers Can Selfish Defenders Catch?"**, Revision submitted in *Discrete Applied Mathematics*, (major revision had been recommended in the 1st round).

Refereed Conferences Proceedings

1. P. Petrides, A. Gregoriades and V. Papadopoulou Lesta, "**Project Risk Management Using Event Calculus**", *The 23rd International Conference on Software Engineering and Knowledge Engineering*, Miami, USA, July 7 - July 9, 2011, to appear.
2. P. Petrides, A. Gregoriades and V. Papadopoulou Lesta, "**Software Project Change Management Using Event Calculus**", *2011 International Conference on Software Engineering Research and Practice*, Las Vegas, USA, July 18-21, 2011, to appear.
3. A. Gregoriades, K. Mouskos and V. Papadopoulou Lesta, "**A Computational Approach to Traffic Safety Analysis**", *International Conference on Computational Intelligence and Industrial Application (PACIIA 2010)*, Wuhan, China, November 2010.
4. A. Gregoriades, S. Obadan, H. Michail, V. Papadopoulou, D. Michael, "**A Robotic System for Home Security Enhancement**", *Proceedings of the 8th International Conference on Smart Homes and Health Telematics (ICOST)*, Lecture Notes in Computer Science, Vol. 6159, Springer, pp. 43-52, 2010.
5. V. Papadopoulou, A. Gregoriades, **Nonfunctional Requirements Validation-A Game Theoretic Approach**, *CD-ROM Proceedings of the International Conference on Engineering Management and Service Sciences (EMS 2009)*, September 2009.
6. V. Papadopoulou, A. Gregoriades, **Network Security Validation Using Game Theory**, *Proceedings of the Workshop on Information System in Distributed Environment (ISDE 2009)*, OnTheMove Federated Conferences & Workshops, Lecture Notes in Computer Science, 5872, Springer Verlag, pp. 259-266, November 2009.
7. A. Gregoriades, M. Pampaka and V. Papadopoulou, **Internationalising The Management Information Systems Module**, *Proceedings of the First International Conference on Computer Supported Education (CSEDU 2009)*, Vol. 2, pp. 21-26, INSTICC Press, March 2009.
8. M. Mavronicolas, B. Monien and V. G. Papadopoulou, "**How Many Attackers Can Selfish Defenders Catch?**" *CD-ROM Proceedings of the 41st Hawaii International Conference on System Sciences (HICSS41)*, pp. 470, January 2008.

9. M. Mavronicolas, B. Monien, V. G. Papadopoulou and F. Schoppmann, "**Voronoi Games on Cycle Graphs**", *Proceedings of the 33rd International Symposium on Mathematical Foundations of Computer Science (MFCS 2008)*, pp. 503-514, Vol. 5162, Lecture Notes in Computer Science, Springer, August 2008.
10. M. Mavronicolas, L. Michael, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, "**The Price of Defense**", *Proceedings of the 31st International Symposium on Mathematical Foundations of Computer Science (MFCS 2006)*, pp. 717-728, Vol. 4162, Lecture Notes in Computer Science, Springer, August 2006.
11. M. Mavronicolas, V. G. Papadopoulou, G. Persiano, A. Philippou and P. G. Spirakis, "**The Price of Defense and Fractional Matchings**", *Proceedings of the 8th International Conference on Distributed Computing and Networking (ICDCN 2006)*, pp. 115-126, Vol. 4308, Lecture Notes in Computer Science, Springer, December 2006.
12. M. Mavronicolas, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, "**A Network Game with Attackers and a Defender: A Survey**", *CD ROM Proceedings of the 2nd European Conference on Complex Systems 2006 (ECCS 2006)*, September 2006.
13. M. Gelastou, M. Mavronicolas, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, "**The Power of the Defender**", *CD-ROM Proceedings of the 2nd International Workshop on Incentive-Based Computing (IBC 2006)*, in conjunction with the 26th IEEE International Conference on Distributed Computing Systems Workshops (ICDCSW'06), pp. 37, July 2006.
14. M. Mavronicolas, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, "**A Network Game with Attacker and Protector Entities**", *Proceedings of the 16th Annual International Symposium on Algorithms and Computation (ISAAC 2005)*, pp. 288-297, Vol. 3827, Lecture Notes in Computer Science, Springer, December 2005.
15. M. Mavronicolas, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, "**A Graph-Theoretic Network Security Game**", *Proceedings of the First Workshop on Internet and Network Economics (WINE 2005)*, pp. 969-978, Vol. 3828, Lecture Notes in Computer Science, Springer, December 2005.
16. M. Andreou, V. G. Papadopoulou, P. G. Spirakis, B. Theodorides and A. Xeros, "**Generating and Radiocoloring Families of Perfect Graphs**", *Proceedings of the 4th International Workshop on Efficient and Experimental Algorithms (WEA*

2005), pp. 302-314, Vol. 3503, Lecture Notes in Computer Science, Springer, May 2005.

17. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou and P. G. Spirakis, **"Radiocolorings in Periodic Planar Graphs: PSPACE-Completeness and Efficient Approximations for the Optimal Number of Frequencies"**, *Proceedings of the 1st International Congress – "From Scientific Computing to Computational Engineering" (1st IC- SCCE)*, September 2004.
18. S. Nikolettseas, V. G. Papadopoulou and P. G. Spirakis, **"Radiocoloring Graphs via the Probabilistic Method"**, *Proceedings of the 4th Panhellenic Logic Symposium*, 2003.
19. M. Andreou, D. Fotakis, S. Nikolettseas, V. G. Papadopoulou and P. G. Spirakis, **"On Radiocoloring Hierarchically Specified Planar Graphs: PSPACE-completeness and Approximations"**, *Proceedings of the 27th International Symposium on Mathematical Foundations of Computer Science (MFCS 2002)*, pp. 81-92, Vol. 2420, Lecture Notes in Computer Science, Springer, August 2002.
20. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou, P. G. Spirakis, **"Radiocolorings in Periodic Planar Graphs: PSPACE-Completeness and Efficient Approximations for the Optimal Range of Frequencies"**, *Proceedings of the 28th International Workshop of Graph-Theoretic Concepts in Computer Science (WG 2002)*, pp. 223-234, Vol. 2573, Lecture Notes in Computer Science, Springer, June 2002.
21. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou and P. G. Spirakis, **"NP-completeness Results and Efficient Approximations for Radiocoloring in Planar Graphs"**, *Proceedings of the 25th Mathematical Foundations of Computer Science (MFCS 2000)*, pp. 363-372, Vol. 1893 Lecture Notes in Computer Science, Springer, August 2000.
22. V. G. Papadopoulou, P. G. Spirakis, **"Algorithmic Issues in Mobile Environments with Fixed Hosts"**, *Proceedings of the 7th Panhellenic Conference on Informatics (PCI 1999)*, 1999.