

# Curriculum Vitae of

## Vicky G. Papadopoulou

### Personal Information

**Full Name:** Vicky G. Papadopoulou

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### Studies

- 2001 (January) – 2003 (June): **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
- 1998 (September) – 2001 (January): **Master Diploma** (MSc), 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
- 1993 (September)-1998 (July): **Bachelor Diploma** (BSc), Department of Computer Engineering and Informatics (Bachelor), University of Patras, Greece.
  - ♦ Diploma Thesis: “Control Problems in Mobile Networks”
  - ♦ Advisor: Professor Paul Spirakis.
  - ♦ Diploma degree: 8

## Professional Experience

- May 2004 - today: **Post-Doctorate Researcher** in the Department of Computer Science, University of Cyprus, Research Laboratory for Foundations of Computing Systems and Theoretical Computer Science, directed by Professor Marios Mavronicolas.
- Jan 2007 - Jun 2007: **Visiting Lecturer** in the Department of Computer Science, University of Cyprus. Instructor for the course: CS211: “Theory of Computation and Complexity”.
- Sep 2003 - Feb 2004. **Visiting Lecturer**, Department of Pharmacy, University of Patras, Greece. Instructor of the course “Informatics”.
- Jul 2003 - May 2004: **Post-Doctorate Researcher** in Research Academic Computer Technology Institute (R.A.C.T.I), Research Unit I (Foundations of Computer Science, Relative Technologies and Applications), Patras, Greece.
- Sep 1998 - Jun 2003: **Research and Development Engineer** in R.A.C.T.I, Research Unit I (Foundations of Computer Science, Relative Technologies and Applications), Patras, Greece.

## Research Interests:

**Research Interest Area:** Theoretical Computer Science and Applications

**Research fields:** Algorithmic Game Theory, Computational Complexity, Graph Theory, Approximation and Combinatorial Algorithms, Distributed Systems and Computation, Frequency Assignment Problems, Mobile Computing.

## Teaching Experience

- Spring Semester 2006-2007: **Visiting Lecturer** in the Department of Computer Science, University of Cyprus, Nicosia, Cyprus. Instructor of the course: CS211 “Theory of Computation and Complexity”.
- Winter semester 2003-2004: **Visiting Lecturer**, Department of Pharmacy, University of Patras, Patras, Greece. Instructor of the course: “Informatics”.
- Spring Semester 2007-2008: **Teaching Assistant** in the Department of Computer Science, University of Cyprus, Nicosia, Cyprus.
- **Teaching Assistant** in the Department of Computer Engineering and Informatics, University of Patras, Patras, Greece, in the following undergraduate and post-graduate courses (duties include both theory lectures and exercises)

- ♦ 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002–2003: Distributed Systems I (basic selection, 4o year, undergraduate)
- ♦ 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002–2003: Distributed Systems II (free selection, 4o year, postgraduate)
- ♦ 1998 – 1999: Distributed Systems Laboratory I, II
- ♦ 2001-2002, 2002-2003: Theory of Efficient Approximation Algorithms I (postgraduate)
- **Co-Advisor in (undergraduate) diploma Thesis** (Advisor: Professor P. Spirakis), Department of Computer Engineering and Informatics, University of Patras, Greece:
  - ♦ Thesis Title: “Algorithms for Frequency Assignment in Radio and Mobile Networks for partial k-trees, chordal and permutation graphs”, Author: Xeros Andreas, **2001-2002**.
  - ♦ Thesis Title: “Investigation, Implementation και Experimental Evaluation of Routing Algorithms in Ad-hoc Mobile Networks”, Author: Politopouloi Efi, **2000-2001**.
  - ♦ Thesis Title: “Algorithms for Frequency Assignment in Radio and Mobile Networks for split, outerplanar) and planar graphs”, Theodoridi Varvara, **2001-2002**.
- **Co-Advisor in (undergraduate) diploma Thesis** (with Lecturer C. Georgiou), Department of Computer Science, University of Cyprus, Nicosia, Cyprus:
  - ♦ Thesis Title: “Searching a Black Hole Using Mobile Agents in Networks, Author: George Loutsios, **2007-2008**.”

## Professional Activities

### *Reviewer*

- **International conferences:** STOC01, ESA02, WG02, PODC02, ICALP02, WG03, MFCS03, MFCS04, ICALP04, ICALP05, Globecom 2005, CIAC06, SPAA05, ESA06, SPAA07.
- **Scientific Journals:** WINET, Theoretical Computer Science, International Journal of Computer Mathematics.

### *Participation in Conferences Organization*

- The 33rd ACM Symposium on Theory of Computing (STOC 2001), Crete, 6-8 of July 2001, (R.A.C.T.I. organization).

- The 28th International Colloquium on Automata, Languages and Programming (ICALP 2001), Crete, 8 -12 of July 2001, (R.A.C.T.I. organization).
- The 13th ACM Symposium on Parallel Algorithms and Architecture, (SPAA 2001), Crete, 4-6 of July 2001, (R.A.C.T.I. organization).

## 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 25th International Symposium on Mathematical Foundations of Computer Science (MFCS 2000).
- 1999 - 2000: Fellowship in Postgraduate Master Diploma, Department of Computer Engineering and Informatics, University of Patras, Greece.

## Invited Talks and Scientific Presentations

- Invited talk in the 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”.
- Invited talk in the 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: “Nash Equilibria in a Security Game”.
- Invited talk in Department of Computer Science, University of Bonn, Germany. Invitation by Professor Marek Karpinski, July 2003. Talk title: “Radiocoloring Hierarchically Specified Planar Graphs”.
- Scientific Talk in 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: “Radiocoloring Planar Graphs”.
- Presentation of scientific talks (2000, 2003 (4 talks)) in seminars of R&D of R.A.C.T.I.

## References

- **Paul Spirakis**  
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- **Marios Mavronicolas**  
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- **Christos Kaklamanis**  
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- **Burkhard Monien**  
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## Publications List

### *Journals*

1. 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., June 2008, accepted.
2. M. Mavronicolas, V. G. Papadopoulou, A. Philippou and P. G. Spirakis, "**A Network Game with Attacker and Protector Entities**", accepted to 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.
3. 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.
4. V. G. Papadopoulou, "**A Game on a Distributed Network**", Bulletin of the EATCS, No 89, pp. 97-116, June 2006.
5. D. Fotakis, S. Nikolettseas, V. G. Papadopoulou, P. G. Spirakis, "**Radiocoloring in Planar Graphs: Complexity and Approximations**", Theoretical Computer Science, Elsevier, Volume 340, pp. 514-538, August 2005.
6. 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 EATCS, Vol. 75, pp. 152-181, October 2001.
7. 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.

### *Book Chapters*

8. 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.

## Conferences

9. 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), January 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.

## Languages

- Fluent in English