Dimitris Fotakis

Division of Computer Science
School of Electrical and Computer Engineering
National Technical University of Athens
Iroon Polytechneiou 9, 15780 Zografou,
Athens, GREECE

CURRENT POSITION

Assistant Professor *(since February 2014,* **Lecturer**, *February 2009 – February 2014).*
Division of Computer Science, School of Electrical and Computer Engineering,
National Technical University of Athens, GREECE.

PREVIOUS POSITIONS

Assistant Professor *(October 2004 – February 2009, tenured since June 2008).*
Department of Information and Communication Systems Engineering,
School of Sciences, **University of the Aegean**, GREECE.

Lecturer *(November 2003 – October 2004).*
General Department of Mathematical, Physical, and Computational Sciences,
School of Engineering, **Aristotle University of Thessaloniki**, GREECE.

Post-doctoral Researcher *(September 2001 – August 2003).*
Algorithms and Complexity Group, **Max-Planck-Institut für Informatik**,
Saarbrücken, GERMANY. Director: *Prof. Dr. Kurt Mehlhorn*.

TEACHING POSITIONS

Tutor *(since Oct. 2003),* **Assistant Coordinator** *(Oct. 10 – July 16),* **Coordinator** *(since Oct. 2016).*
Discrete Mathematics and Mathematical Logic unit, Computer Science program,
Greek Open University, GREECE.

EDUCATION

PhD in Computer Science *(June 1999).*
Department of Computer Engineering and Informatics, **University of Patras**, GREECE.
Thesis: *Approximate Solution of Computationally Hard Problems: Algorithms and Complexity.*
Advisor: *Prof. Paul Spirakis*

Computer Engineering Diploma *(November 1994, GPA: 9.10/10.0, with distinction)*
Department of Computer Engineering and Informatics, **University of Patras**, GREECE.

RESEARCH INTERESTS

Design and Analysis of Combinatorial Algorithms, Algorithmic Game Theory,
Approximation and Online Algorithms, Computational Complexity, Algorithmic Engineering

RESEARCH PROJECTS / GRANTS

Senior researcher, basic research project **Algorithmic Game Theory/Thales**, Greek
Secretariat of Research and Technology, *Oct. 2011 – Oct. 2015. Coordinator: Paul Spirakis.*
Duties: member of the core group of main investigators and of the proposal writing group.

Senior researcher, basic research project **Algorithms of Today/Thales**, Greek Secretariat of
Research and Technology, *Oct. 2011 – Oct. 2015. Coordinator: Stathis Zachos.*
Duties: member of the core group of main investigators, of the management board and of the proposal
writing group.

Senior researcher, basic research project **Handling Uncertainty in Data Intensive
Applications/Thales**, Greek Secretariat of Research and Technology, *Oct. 2011 – Oct. 2015.
Coordinator: Foto Afrati. Duties*: member of the core group of main investigators and of the proposal
writing group.

Scientific Coordinator, basic research project **Resource Allocation to Selfish Users Using
Game Theoretic Models/PEBE 2009**, National Technical University of Athens, *Dec. 2009 –
May 2012. Duties*: principal investigator, management, proposal writing.

Senior researcher, basic research project **Integrated Approaches to Very Large Network
Optimization/Pythagoras**, Greek Secretariat of Research and Technology, *Sept. 2004 – Sept.
2006.* Coordinator: *Christos Zaroliagis.*

Researcher, member of the research group of the Computer Technology Institute for the EU-funded basic research projects:

- Dynamically Evolving, Large Scale Information Systems, **DELIS** (*Jan. 2004 – Dec. 2004*).
- Critical Resource Sharing for Cooperation in Complex Systems, **CRESCCO** (*Oct. 2003 – Dec. 2004*).
- Foundational Aspects of Global Computing Systems, **FLAGS** (*Oct. 2003 – Dec. 2004).*
- Algorithms and Complexity, **ALCOM-IT** (*Jan. 1996 – Sept. 1999*).

PROFESSIONAL SERVICE

Program Committees: *ESA-A 2017, SAGT 2017, CIAC 2017, WWW – Internet Monetization and Online Markets 2017, TAMC 2017, ICALP-A 2016, SWAT 2016, ICALP-A 2015, WINE 2015, SAGT 2015, TAMC 2015, Algorithms for MapReduce and Beyond 2014, TAMC 2014, SAGT 2013, CIAC 2013, WAOA 2013, SWAT 2012, SAGT 2012, ICALP-A 2011, EC 2010, SAGT 2010, SAGT 2008, ESA-A 2006.*

Organizing Committees: 10th International Conference on Algorithms and Complexity (CIAC 2017, Athens, Greece, May 2017), International Summer School on Algorithmic Game Theory (Samos, Greece, July 2012), Athens Colloquium on Algorithms and Complexity (annual two-day workshop, member of the OC since 2009).

Editorial Boards: open access journal *Algorithms*, MDPI – Open Access Publishing, editor in chief: *Henning Fernau.*

Invited Editor: *Theory of Computing Systems*, special issue with selected papers from *SAGT 2013.*

Reviewer for the following **journals**: *Information and Computation, Journal of Computer and System Sciences, Algorithmica, Theoretical Computer Science, SIAM Journal on Discrete Mathematics, ACM Transactions on Algorithms, Theory of Computing Systems, ACM Transactions on Economics and Computation, Games and Economic Behavior, Discrete Optimization, Discrete Mathematics and Theoretical Computer Science, Journal of Discrete Algorithms, International Journal of Game Theory, Parallel Processing Letters, ACM Journal of Experimental Algorithms, RAIRO Theoretical Informatics and Applications, Networks, Journal of Parallel and Distributed Processing, European Journal of Operational Research, Operational Research: An International Journal, Journal of Applied Mathematics and Computing, Computer Communications. Information and Computation, Journal of Computer and System Sciences, Algorithmica, Theoretical Computer Science, SIAM Journal on Discrete Mathematics, ACM Transactions on Algorithms, ACM Transactions on Economics and Computation, Theory of Computing Systems, Discrete Mathematics and Theoretical Computer Science, Journal of Discrete Algorithms, Games and Economic Behaviour, Parallel Processing Letters, ACM Journal of Experimental Algorithms, RAIRO Theoretical Informatics and Applications, European Journal of Operational Research, Networks, Journal of Parallel and Distributed Processing, Computer Communications, Journal of Applied Mathematics and Computing.*

Reviewer for the following **conferences**: ESA 1996, ESA 1998, ICALP 1999, ICALP 2001, STOC 2002, ICALP 2002, WG 2002, COCOON 2002, SPAA 2002, ESA 2002, SODA 2003, STACS 2003, SPAA 2003, WG 2003, MFCS 2003, WAOA 2003, WADS 2003, WEA 2003, ICALP 2004, MFCS 2004, GLOBECOM 2004, DISC 2004, QShine 2004, ACM-SAC 2005, IPDPS 2005, STACS 2005, SEC 2005, WEA 2005, ICALP 2005, EuroPar 2005, SPAA 2005, ESA 2005, CIAC 2006, WEA 2006, ICALP 2006, WADS 2006, EuroPar 2006, SODA 2007, ICALP 2007, WINE 2007, ICALP 2008, ESA 2008, FOCS 2008, WAOA 2008, WINE 2008, ICALP 2009, WAOA 09, ESA 09, WINE 09, MFCS 2010, ESA 2010, DICS 2010, WG 2011, IWOCA 2011, FST&TCS 2011, STACS 2012, ICALP 2012, EC 2012, COCOON 2012, ESA 2012, WAOA 2012, COCOON 2013, IWOCA 2013, ESA 2013, INFOCOM 2014, NetEcon 2014, ALENEX 2014, ITCS 2014, COCOON 2014, ICALP 2014, SAGT 2014, NetEcon 2015, CSR 2015, COCOON 2015, STOC 2015, SPAA 2015, LATIN 2016, SODA 2016, AAMAS 2016, STACS 2016, MFCS 2016, ISCO 2016, SODA 2017, ALENEX 2017.

Evaluator of research proposals: General Secretariat of Research and Technology – Greece, Foundation for Research Promotion – Cyprus, Organization for Scientific Research – the Netherlands, Czech Science Foundation, European Research Council (ERC).

CITATIONS AND IMPACT

> **Scopus**:   **74** papers, **419** citations (excluding self-citations of all authors), **11** h-index.
>   **74** papers, **518** citations (with self-citations), **13** h-index.
>
> **Google Scholar**:   **116** papers, **1702** citations (**830** citations since 2011),
>   **22** h-index, **42** i10-index

INVITED TALKS (WITH TRAVEL EXPENSES COVERED)

- *Who to Trust for Truthfully Maximizing Welfare?* LIP6, University Pierre et Marie Curie, Paris, France, November 17, 2015.
- *Approximate Strategyproof Mechanisms for Facility Location Games.* International Summer School on Algorithmic Game Theory, Samos, Greece, July 17, 2012.
- *Deterministic Strategyproof Mechanisms for Facility Location Games.* Economics and Computation Group, Computer Science Department, University of Liverpool, UK, March 7, 2012.
- *Selected Topics in Algorithmic Game Theory: Congestion Games and Mechanism Design without Money.* 2nd Hellenic Artificial Intelligence Summer School (HAISS-11), University of Patras, Greece, July 28, 2011.
- *Congestion Games and Price of Anarchy: How to Reduce it and the Impact of Social Ignorance.* Algopaignio University Network, University of Patras, Greece, June 29, 2010.
- *Stackelberg Strategies and Cost-Balancing Tolls for Atomic Congestion Games.* Computer Science Department, University of Liverpool, UK, January 26, 2009.

LONG TERM VISITS (WITH TRAVEL AND LIVING EXPENSES COVERED)

- Invited professor, LAMSADE, *Univ. Paris Dauphine*, 2016 – 2017.
- Invited professor, LAMSADE, *Univ. Paris Dauphine*, March and June, 2016.
- Invited professor, LAMSADE, *Université Paris Dauphine,* November 2014 and March 2015.
- Research visitor, Algorithms and Complexity Department, *Max-Planck-Institut für Informatik*, Saarbrücken, Germany, May – August, 2014.
- Visiting fellow, Computer Science Department, *University of Liverpool*, UK, February – April 2014.

TEACHING EXPERIENCE

- Algorithms and Complexity (undergraduate level, since 2004).
- Discrete Mathematics (undergraduate level, since 2003).
- Introduction to Computer Programming (undergraduate level, since 2009).
- Theory of Computation (undergraduate level, 2004 – 2008).
- Data Structures (undergraduate level, 2004-2008).
- Introduction to Combinatorial Optimization (graduate level, 2005 – 2008).
- Approximation and Online Algorithms (graduate level, 2009, 2012).
- Randomized Algorithms (graduate level, 2010).
- Algorithmic Game Theory (graduate level, 2011, 2016).

ADVISING AND MENTORING

- PhD co-advisor (with Stathis Zachos) of *Thanasis Lianeas* (thesis title: *Congestion Games: Stochastic Extensions and Techniques for Reducing the Price of Anarchy,* December 2014). Thanasis is now a postdoc at the Department of Electrical and Computer Engineering, University of Texas at Austin, working under the supervision of Evdokia Nikolova.
- Advisor or co-advisor of 15 PhD students (main advisor in 7 of them).
- Member of the examination committee for 15 PhD theses.
- Mentor and research advisor of 20 undergraduate or graduate students (since 2010) admitted for PhD in top universities abroad (e.g., MIT, Cornell, Columbia, Harvard, UPenn, Washington, Austin, Oxford, Edinburgh).
- Advisor or co-advisor of 40 undergraduate diploma theses (main advisor in 30 of them) and of 8 MSc theses (main advisor in 3 of them) on approximation and online algorithms and algorithmic game theory.

PUBLICATIONS

Books – Lecture Notes (in Greek)

[B5] E. Zachos and D. Fotakis. *Algorithms and Complexity (lecture notes)*. School of Electrical and Computer Engineering, National Technical University of Athens, 2012.

[B4] D. Fotakis. *Algorithms and Complexity (lecture notes)*. Department of Information and Communication Systems Engineering, University of the Aegean, 2004.

[B3] D. Fotakis. *Data Structures (lecture notes)*. Department of Information and Communication Systems Engineering, University of the Aegean, 2004.

[B2] P. Spirakis and D. Fotakis. *Advanced Algorithms*. Greek Open University, 2003.

[B1] D. Fotakis and P. Spirakis. *Algorithms and Complexity*. Greek Open University, 2002.

Journals

THEORETICAL COMPUTER SCIENCE

[J33] D. Fotakis, A. Kaporis, T. Lianeas, and P. Spirakis. Resolving Braess's Paradox in Random Networks. To appear in *Algorithmica*, Springer, 2017.

[J32] D. Fotakis, D. Tsipras, C. Tzamos and E. Zampetakis. Efficient Money Burning in General Domains. To appear in *Theory of Computing Systems, Special Issue on SAGT 2014 and SAGT 2015, invited paper*, Springer, 2017.

[J31] D. Fotakis, P. Krysta, and C. Ventre. Combinatorial Auctions without Money. To appear in *Algorithmica*, Springer, 2016.

[J30] D. Fotakis and E. Zampetakis. Truthfulness Flooded Domains and the Power of Verification for Mechanism Design. *ACM Transactions on Economics and Computation, Special Issue on WINE 2013, invited paper*, **3**(4): art. 20, pages 29, ACM Press, 2015.

[J29] D. Fotakis and C. Tzamos. Strategy-Proof Facility Location for Concave Cost Functions. *Algorithmica* **76**(1): 143-16, Springer, 2016.

[J28] F. Afrati, D. Fotakis, and A. Vasilakopoulos. Efficient Lineage for SUM Aggregate Queries. *AI Communications* **28**(4): 655-663, IOS Press, 2015.

[J27] D. Fotakis and P. Siminelakis. On the Efficiency of Influence-and-Exploit Strategies for Revenue Maximization under Positive Externalities. *Theoretical Computer Science* **539**: 68-86, Elsevier, 2014.

[J26] D. Fotakis and C. Tzamos. On the Power of Deterministic Mechanisms for Facility Location Games. *ACM Transactions on Economics and Computation* **2**(4): art. 15, pages 37, ACM Press, 2014.

[J25] D. Fotakis, A.C. Kaporis, T. Lianeas, and P.G. Spirakis. On the Hardness of Network Design for Bottleneck Routing Games. *Theoretical Computer Science* **521**: 107-122, Elsevier, 2014.

[J24] D. Fotakis and P. Koutris. Online Sum-Radii Clustering. *Theoretical Computer Science* **540**: 27-39, Elsevier, 2014.

[J23] D. Fotakis and C. Tzamos. Winner-Imposing Strategyproof Mechanisms for Multiple Facility Location Games. *Theoretical Computer Science* **472**: 90-103, Elsevier, 2013.

[J22] D. Fotakis, A. Kaporis, and P. Spirakis. Efficient Methods for Selfish Network Design. *Theoretical Computer Science* **448**: 9-20, Elsevier, 2012.

[J21] D. Fotakis. Memoryless Facility Location in One Pass. *ACM Transactions on Algorithms* **7**(4): 49, 2011.

[J20] D. Fotakis, V. Gkatzelis, A. Kaporis, and P. Spirakis. The Impact of Social Ignorance on Weighted Congestion Games. *Theory of Computing Systems* **50**(3): 559-578, Springer, 2012.

[J19] D. Fotakis. Congestion Games with Linearly Independent Paths: Convergence Time and Price of Anarchy. *Theory of Computing Systems* **47**(1): 113-136, *Special Issue on SAGT 2008, invited paper*, Springer, 2010.

[J18] D. Fotakis, A. Kaporis, and P. Spirakis. Atomic Congestion Games: Fast, Myopic, and Concurrent. *Theory of Computing Systems* **47**(1): 38-59, *Special Issue on SAGT 2008, invited paper*, Springer, 2010.

[J17] D. Fotakis. Stackelberg Strategies for Atomic Congestion Games. *Theory of Computing Systems* **47**(1): 218-249, Springer, 2010.

[J16]   D. Fotakis, S. Kontogiannis, E. Koutsoupias, M. Mavronicolas, P. Spirakis. The Structure and Complexity of Nash Equilibria for a Selfish Routing Game. *Theoretical Computer Science* **410**(36): 3305-3326, Elsevier, 2009.

[J15]   D. Fotakis and P. Spirakis. Cost-Balancing Tolls for Atomic Network Congestion Games. *Journal of Internet Mathematics* **5**(4): 343-363, *Special Issue on WINE 2007, invited paper*, A.K. Peters, 2008.

[J14]   D. Fotakis, S. Kontogiannis, P. Spirakis. Atomic Congestion Games among Coalitions. *ACM Transactions on Algorithms* **4**(4): art. 52, 27 pages, 2008.

[J13]   D. Fotakis. On the Competitive Ratio for Online Facility Location. *Algorithmica* **50**(1): 1-57, Springer, 2008.

[J12]   D. Fotakis. Incremental Algorithms for Facility Location and *k*-Median. *Theoretical Computer Science* **361** (2-3): 275-313, *Special Issue on Approximation and Online Algorithms*, Elsevier, 2006.

[J11]   D. Fotakis. A Primal-Dual Algorithm for Online Non-Uniform Facility Location. *Journal of Discrete Algorithms* **5**: 141-148, Elsevier, 2007.

[J10]   D. Fotakis, S. Nikoletseas, V. Papadopoulou, and P. Spirakis. Radiocolorings in Periodic Planar Graphs: PSPACE-Completeness and Efficient Approximations for the Optimal Range of Frequencies. *Journal of Discrete Algorithms* **4**(3): 433-454, Elsevier, 2006.

[J9]   D. Fotakis, S. Kontogiannis, and P. Spirakis. Selfish Unsplittable Flows. *Theoretical Computer Science* **348**: 226-239, *Special Issue on ICALP 2004, invited paper*, Elsevier, 2005.

[J8]   D. Fotakis, S. Nikoletseas, V. Papadopoulou, and P. Spirakis. Radiocoloring in Planar Graphs: Complexity and Approximations. *Theoretical Computer Science* **340**: 514-538, *Special Issue on MFCS 2000, invited paper*, Elsevier, 2005.

[J7]   D. Fotakis, R. Pagh, P. Sanders, and P. Spirakis. Space Efficient Hash Tables with Worst-Case Constant Access Time. *Theory of Computing Systems* **38**: 229-248, *Special Issue on STACS 2003, invited paper*, Springer, 2005.

[J6]   D. Fotakis and P. Spirakis. Minimum Congestion Redundant Assignments to Tolerate Random Faults. *Algorithmica* **32**: 396-422, Springer, 2002.

[J5]   D. Fotakis, S. Nikoletseas, V. Papadopoulou, and P. Spirakis. Hardness Results and Efficient Approximations for Frequency Assignment Problems: Radio Labelling and Radio Coloring. *Computing and Informatics* **20**: 121-180, 2001.

HEURISTICS

[J4]   D. Fotakis and S. Gritzalis. Efficient Heuristic Algorithms for Correcting the Cascade Vulnerability Problem for Interconnected Networks. *Computer Communications* **29**, pp. 2109-2122, Elsevier, 2006.

[J3]   S. Likothanassis, G. Beligiannis, D. Fotakis, D. Fragoudis, and K. Giotopoulos. An Evolutionary Computation Technique for User Profile Optimization. *International Journal of Computers and Their Applications* **10**(1), pp. 25-33, 2002.

[J2]   S. Katsikas, S. Likothanassis, G. Beligiannis, K. Berketis and D. Fotakis. Genetically Determined Variable Structure Multiple Model Estimation. *IEEE Transactions on Signal Processing* **49**(10), pp. 2253-2261, 2001.

OPEN AND DISTANCE LEARNING

[J1]   C. Bouras, D. Fotakis, V. Kapoulas, S. Kontogiannis, P. Lampsas and A. Tatakis. Using Multimedia / Hypermedia Tools over Networks for Distance Education and Training. *Journal of Educational Technology Review* **7**, pp. 20-26, 1997.

Chapters in Books

[H5]   M.I. Andreou, D. Fotakis, V. Papadopoulou-Lesta, S.E. Nikoletseas and Paul G. Spirakis. On Radiocoloring Hierarchically Specified Planar Graphs: PSPACE-completeness and Approximations. *Algorithms, Probability, Networks, and Games: Scientific Papers and Essays Dedicated to Paul G. Spirakis on the Occasion of His 60th Birthday.* LNCS 9295: 97-132, Springer, 2015.

[H4]   D. Fotakis, S. Kontogiannis, P. Panagopoulou, C. Raptopoulos, P. Spirakis. Algorithmic Issues in Coalitional and Dynamic Network Games. *F. Meyer auf der Heide and B. Monien*

(eds.), New Trends in Parallel and Distributed Computing, HNI-Verlagsschriftenreihe **181**, pp. 25-42, Heinz Nixdorf Institut, Universität Paderborn, 2006.

[H3] D. Fotakis and P. Spirakis. Assignment of Reusable and Non-Reusable Frequencies. *P.M. Pardalos, A. Migdalas, and R. Burkard (eds.), Combinatorial and Global Optimization*, pp. 75-93, World Scientific, 2001.

[H2] D. Fotakis and P. Spirakis. Machine Partitioning and Scheduling under Fault-Tolerance Constraints. *P.M. Pardalos (ed.), Approximation and Complexity in Numerical Optimization: Continuous and Discrete Problems*, Non-Convex Optimization and its Applications **42**, pp. 209-244, Kluwer, 2000.

[H1] D. Fotakis, G. Pantziou, G. Pentaris, and P. Spirakis. Frequency Assignment in Mobile and Radio Networks. *M. Mavronicolas, M. Merritt, and N. Shavit (eds.), Networks in Distributed Computing*, DIMACS Series in Discrete Mathematics and Theoretical Computer Science **45**, pp. 73-90, American Mathematical Society, 1999.

Surveys

[E5] D. Fotakis. A Selective Tour through Congestion Games. *Algorithms, Probability, Networks, and Games: Scientific Papers and Essays Dedicated to Paul G. Spirakis on the Occasion of His 60th Birthday.* LNCS 9295: 223-241, Springer, 2015.

[E4] D. Fotakis and C. Tzamos. Strategyproof facility location with concave costs. *SIGecom Exchanges* **12**(2): 46-49, 2013.

[E3] D. Fotakis. Online and Incremental Algorithms for Facility Location. *SIGACT News* **42**(1): 97-131, *Online Algorithms Column 18,* 2011.

[E2] D. Fotakis and P. Spirakis. Minimum Congestion Redundant Assignments: Complexity and Efficiency. *Ming-Yang Kao (ed.), Encyclopedia of Algorithms*, 5 pages, Springer, 2007.

[E1] D. Fotakis, S. Nikoletseas, V. Papadopoulou, P. Spirakis. Hardness Results and Efficient Approximations for Frequency Assignment Problems and the Radio Coloring Problem. *Bulletin of the EATCS* **75**, pp. 152-181, 2001.

Preprints and Recent Submissions

[S3] D. Fotakis, L. Gourves and J. Monnot. Conference Program Design with Single-Peaked and Single-Crossing Preferences. *Submitted for publication,* 2016.

[S2] D. Fotakis, L. Gourves and J. Monnot. Selfish Transportation Games. *Submitted for publication,* 2016.

[S1] F. Afrati, D. Fotakis, and J.D. Ullman. Enumerating Subgraph Instances Using Map-Reduce. *Stanford InfoLab Technical Report* και *CoRR abs/1208.0615,* 2012.

Conferences

THEORETICAL COMPUTER SCIENCE

[C58] D. Fotakis, C. Tzamos and E. Zampetakis. Mechanism Design with Selective Verification. *Proc of the 17th ACM Conference on Electronic Commerce – EC 2016*, ACM, 2016.

[C57] K. Axiotis and D. Fotakis. On the Size and the Approximability of Minimum Temporally Connected Subgraphs. *Proc. of the 43rd International Colloquium on Automata, Languages, and Programming – ICALP 2016, Track C,* LIPIcs, 2016.

[C56] D. Fotakis, D. Palyvos-Giannas and S. Skoulakis. Opinion Dynamics with Local Interactions. *Proc. of the 25th International Joint Conference on Artificial Intelligence – IJCAI 2016,* 2016.

[C55] D. Fotakis, I. Milis, O. Papadigenopoulos, V. Vassalos, G. Zois. Scheduling MapReduce Jobs under Multi-Round Precedences. *Proc. of the 22nd European Conference on Parallel and Distributed Computing – EuroPar 2016,* LNCS, Springer, 2016.

[C54] D. Fotakis, M. Lampis and V.Th. Paschos. Sub-exponential Approximation Schemes for CSPs: from Dense to Almost Sparse. *Proc. of the 33rd Symposium on Theoretical Aspects of Computer Science – STACS 2016,* 2016.

[C53] D. Fotakis, D. Kalimeris and T. Lianeas. Improving Selfish Routing for Risk-Averse Players. *Proc. of the 11th International Conference on Internet and Network Economics – WINE 2015,* LNCS 9470: 328-342, Springer, 2015.

[C52] D. Fotakis, D. Tsipras, C. Tzamos and E. Zampetakis. Efficient Money Burning in General Domains. *Proc. of the 7th International Symposium on Algorithmic Game Theory – SAGT 2015*, LNCS 9347: 85-97, Springer, 2015.

[C51] D. Fotakis, I. Milis, O. Papadigenopoulos, E. Zampetakis and G. Zois. Scheduling MapReduce jobs and data shuffle on unrelated processors. *Proc. of the 14th International Symposium on Experimental Algorithms – SEA 2015*, LNCS 9125: 137-150, Springer, 2015.

[C50] D. Fotakis, P. Krysta, and C. Ventre. The Power of Verification for Greedy Mechanism Design. *Proc. of the 14th International Conference on Autonomous Agents and Multiagent Systems – AAMAS 2015,* pp. 307-315, 2015.

[C49] D. Fotakis, T. Lykouris, E. Markakis and S. Obraztsova. Influence Maximization in Switching-Selection Threshold Models. *Proc. of the 7th International Symposium on Algorithmic Game Theory – SAGT 2014*, LNCS 8768: 122-133, Springer, 2014.

[C48] D. Fotakis, P. Krysta, and C. Ventre. Combinatorial Auctions without Money. *Proc. of the 13th International Conference on Autonomous Agents and Multiagent Systems – AAMAS 2014*, pp. 1019-1036, 2014.

[C47] D. Fotakis, I. Milis, E. Zampetakis, and G. Zois. Scheduling MapReduce Jobs on Unrelated Processors. *Proc. of the Joint Conference EDBT/ICDT 2014 Workshops*: 2 – 5, 2014.

[C46] D. Fotakis and E. Zampetakis. Truthfulness Flooded Domains and the Power of Verification for Mechanism Design. *Proc. of the 9th International Workshop on Internet and Network Economics – WINE 2013*, LNCS 8289: 200-213, Springer, 2013.

[C45] D. Fotakis, A. Kaporis, T. Lianeas, and P. Spirakis. Resolving Braess's Paradox in Random Networks. *Proc. of the 9th International Workshop on Internet and Network Economics – WINE 2013*, LNCS 8289: 186-199, Springer, 2013.

[C44] H. Angelidakis, D. Fotakis, and T. Lianeas. Stochastic Congestion Games with Risk-Averse Players. *Proc. of the 6th International Symposium on Algorithmic Game Theory – SAGT 2013*, LNCS 8146: 87-98, Springer, 2013.

[C43] D. Fotakis and C. Tzamos. On the Power of Deterministic Mechanisms for Facility Location Games. *Proc. of the 40th International Colloquium on Automata, Languages, and Programming – ICALP 2013,* Part I, LNCS 7965: 449-460, Springer, 2013.

[C42] D. Fotakis and C. Tzamos. Strategyproof Facility Location for Concave Cost Functions. *Proc of the 14th ACM Conference on Electronic Commerce – EC 2013*: 435-452, ACM, 2013.

[C41] F.N. Afrati, D. Fotakis, and J.D. Ullman. Enumerating Subgraph Instances Using Map-Reduce. *Proc. of the 29th IEEE International Conference on Data Engineering – ICDE 2013*: 62-73, IEEE, 2013.

[C40] D. Fotakis and P. Siminelakis. On the Efficiency of Influence-and-Exploit Strategies for Revenue Maximization under Positive Externalities. *Proc. of the 8th International Workshop on Internet and Network Economics – WINE 2012*, LNCS 7695: 271-284, Springer, 2012.

[C39] D. Fotakis, A.C. Kaporis, T. Lianeas, P.G. Spirakis. On the Hardness of Network Design for Bottleneck Routing Games. *Proc. of the 5th International Symposium on Algorithmic Game Theory – SAGT 2012*, LNCS 7615: 156–167, Springer, 2012.

[C38] D. Fotakis and P. Koutris. Online Sum-Radii Clustering. *Proc. of the 37th International Symposium on Mathematical Foundations of Computer Science – MFCS 2012*, LNCS 7464: 395–406, Springer, 2012.

[C37] D. Fotakis, P. Krysta, and O. Telelis: Externalities among Advertisers in Sponsored Search. *Proc. of the 4th International Symposium on Algorithmic Game Theory – SAGT 2011*, LNCS 6982: 105-116, Springer, 2011.

[C36] D. Fotakis and C. Tzamos. Winner-Imposing Strategyproof Mechanisms for Multiple Facility Location Games. *Proc. of the 6th International Workshop on Internet and Network Economics – WINE 2010*, LNCS 6484: 234-245, Springer, 2010.

[C35] D. Fotakis, G. Karakostas, and S.G. Kolliopoulos. On the Existence of Optimal Taxes for Network Congestion Games with Heterogeneous Users. *Proc. of the 3rd International Symposium on Algorithmic Game Theory – SAGT 2010*, LNCS 6836: 162-173, Springer, 2010.

[C34] D. Fotakis, V. Gkatzelis, A. Kaporis, and P. Spirakis. The Impact of Social Ignorance on Weighted Congestion Games. *Proc. of the 5th International Workshop on Internet and Network Economics – WINE 2009*, LNCS 5929: 316-327, Springer, 2009.

[C33] D. Fotakis, A. Kaporis, and P. Spirakis. Efficient Methods for Selfish Network Design. *Proc. of the 36th International Colloquium on Automata, Languages, and Programming – ICALP 2009,* Part II, LNCS 5556: 459-471, Springer, 2009.

[C32] D. Fotakis. Congestion Games with Linearly Independent Paths: Convergence Time and Price of Anarchy. *Proc. of the 1st International Symposium on Algorithmic Game Theory – SAGT 2008*, LNCS 4997, pp. 33-45, Springer, 2008.

[C31] D. Fotakis, A. Kaporis, and P. Spirakis. Atomic Congestion Games: Fast, Myopic, and Concurrent. *Proc. of the 1st International Symposium on Algorithmic Game Theory – SAGT 2008*, LNCS 4997, pp. 121-132, Springer, 2008.

[C30] D. Fotakis and P. Spirakis. Cost-Balancing Tolls for Atomic Network Congestion Games. *Proc. of the 3rd International Workshop on Internet and Network Economics – WINE 2007*, LNCS 4858, pp. 179-190, Springer, 2007.

[C29] D. Fotakis. Stackelberg Strategies for Atomic Congestion Games. *Proc. of the 15th European Symposium on Algorithms – ESA 2007*, LNCS 4698, pp. 299-310, Springer, 2007.

[C28] D. Fotakis, S. Kontogiannis, and P. Spirakis. Atomic Congestion Games among Coalitions. *Proc. of the 33rd International Colloquium on Automata, Languages, and Programming – ICALP 2006,* LNCS 4051, pp. 573-584, Springer, 2006.

[C27] D. Fotakis. Memoryless Facility Location in One Pass. *Proc. of the 23rd Symposium on Theoretical Aspects of Computer Science - STACS 2006*, LNCS 3884, pp. 608-620, Springer, 2006.

[C26] D. Fotakis, S. Kontogiannis, and P. Spirakis. Symmetry in Network Congestion Games: Pure Equilibria and Anarchy Cost. *Proc. of the 3rd Workshop on Approximation and Online Algorithms - WAOA 2005*, LNCS 3879, pp. 161-175, Springer, 2006.

[C25] D. Fotakis. A Primal-Dual Algorithm for Online Non-Uniform Facility Location. *Proc. of the 10th Panhellenic Conference on Informatics - PCI 2005*, LNCS 3746, pp. 47-56, Springer, 2005.

[C24] D. Fotakis. Incremental Algorithms for Facility Location and *k*-Median. *Proc. of the 12th European Symposium on Algorithms – ESA 2004*, LNCS 3221, pp. 347-358, Springer, 2004.

[C23] D. Fotakis, S. Kontogiannis, and P. Spirakis. Selfish Unsplittable Flows. *Proc. of the 31st International Colloquium on Automata, Languages, and Programming – ICALP 2004,* LNCS 3142, pp. 593-605, Springer, 2004.

[C22] D. Fotakis. On the Competitive Ratio for Online Facility Location. *Proc. of the 30th International Colloquium on Automata, Languages, and Programming – ICALP 2003*, LNCS 2719, pp. 637-652, Springer, 2003.

[C21] D. Fotakis, R. Pagh, P. Sanders, and P. Spirakis. Space Efficient Hash Tables with Worst-Case Constant Access Time. *Proc. of the 20th Symposium on Theoretical Aspects of Computer Science – STACS 2003*, LNCS 2607, pp. 271-282, Springer, 2003.

[C20] D. Fotakis, S. Kontogiannis, E. Koutsoupias, M. Mavronicolas, and P. Spirakis. The Structure and Complexity of Nash Equilibria for a Selfish Routing Game. *Proc. of the 29th International Colloquium on Automata, Languages, and Programming – ICALP 2002*, LNCS 2380, pp. 123-134, Springer, 2002.

[C19] M. Andreou, D. Fotakis, S. Nikoletseas, V. Papadopoulou, and P. Spirakis. On Radiocoloring Hierarchically Specified Planar Graphs: PSPACE-Completeness and Approximations. *Proc. of the 27th International Symposium on Mathematical Foundations of Computer Science – MFCS 2002*, LNCS 2420, pp. 81-92, Springer, 2002.

[C18] D. Fotakis, S. Nikoletseas, V. Papadopoulou, and P. Spirakis. Radiocolorings in Periodic Planar Graphs: PSPACE-Completeness and Efficient Approximations for the Optimal Range of Frequencies. *Proc. of the 28th International Workshop on Graph Theoretic Concepts in Computer Science – WG 2002*, LNCS 2573, pp. 223-234, Springer, 2002.

[C17] D. Fotakis, S. Nikoletseas, V. Papadopoulou, and P. Spirakis. NP-Completeness Results and Efficient Approximations for Radio Coloring in Planar Graphs. *Proc. of the 25th International Symposium on Mathematical Foundations of Computer Science – MFCS 2000*, LNCS 1893, pp. 363-372, Springer, 2000.

[C16] D. Fotakis and P. Spirakis. Efficient Redundant Assignments under Fault-Tolerance Constraints. *Proc. of the 2nd International Workshop on Approximation Algorithms for Combinatorial Optimization Problems – APPROX 1999*, LNCS 1671, pp. 156-167, Springer, 1999.

[C15] D. Fotakis and P. Spirakis. An Upper Bound on Redundant Assignment Reliability. *Proc. of the Conference "Paul Erdös and His Mathematics"*, pp. 69-73, János Bolyai Mathematical Society, 1999.

[C14] D. Fotakis and P. Spirakis. A Hamiltonian Approach to the Assignment of Non-Reusable Frequencies. *Proc. of the 18th Conference on Foundations of Software Technology and Theoretical Computer Science – FST&TCS 1998*, LNCS 1530, pp. 18-29, Springer, 1998.

[C13] D. Fotakis and P. Spirakis. (poly(log log n), poly(log log n))-Restricted Verifiers are Unlikely to Exist for Languages in NP. *Proc. of the 21st International Symposium on Mathematical Foundations of Computer Science – MFCS '96*, LNCS 1113, pp. 360-371, Springer, 1996.

HEURISTICS

[C12] C.N. Moschopoulos, P. Tsiatsis, G.N. Beligiannis, D. Fotakis, and S.D. Likothanassis. Dealing with Large Datasets Using an Artificial Intelligence Clustering Tool. *Tools and Applications with Artificial Intelligence 2009*, Studies in Computational Intelligence 166: 105 – 129, Springer, 2009.

[C11] D. Fotakis, S. Likothanassis, and S. Stefanakos. An Evolutionary Annealing Approach to Graph Coloring. *Evolutionary Computation in Combinatorial Optimization – EvoCOP 2001*, LNCS 2037, pp. 120-129, Springer, 2001.

[C10] S. Likothanassis, G. Beligiannis, D. Fotakis, D. Fragoudis, and K. Giotopoulos. An Evolutionary Computation Technique For User Profile Optimization. *Information Reuse and Integration – IRI 2001*, pp. 24-29, 2001.

[C9] G.N. Beligiannis, K.G. Berketis, D. Fotakis and S.D. Likothanassis. Evolutionary Multimodel Partitioning Filters for Multivariable Systems. *European Signal Processing – EUSIPCO 1998*, pp. 2149-2152, 1998.

[C8] S. Likothanassis, E. Georgopoulos, and D. Fotakis. Optimizing the Structure of Neural Networks Using Evolution Techniques. *Applications of High Performance Computers in Engineering*, pp. 157-168, 1997.

OPEN AND DISTANCE LEARNING

[C7] C. Bouras, D. Fotakis, V. Kapoulas, A. Koubek, H. Mayer, and H. Rehatscheck. Virtual European School – VES. *IEEE Multimedia Systems 1999, European Projects*, pp. 1055-1057, 1999.

[C6] C. Bouras, D. Fotakis, and A. Philopoulos. A Distributed Virtual Learning Center in Cyberspace. *Virtual Systems and Multimedia 1998*, pp. 410-415, 1998.

[C5] C. Bouras, D. Fotakis, A. Katanou, A. Konidaris, S. Kontogiannis, A. Sevasti, and E. Stephanou. Major Principles on the Design of an Educational Network. *Open Classroom 1997*, pp. 359-366, 1997.

[C4] C. Bouras, D. Fotakis, V. Kapoulas, S. Kontogiannis, K. Kyriakou, P. Lampsas, P.Spirakis, and A. Tatakis. Interactive Environment for Cooperative Teleworking - Telemathea. *Educational Multimedia and Hypermedia – ED-MEDIA 1996*, pp. 37-42, 1996.

[C3] P. Balaouras, C. Bouras, L. Chadellis, D. Fotakis, V. Kapoulas, N. Pallikarakis, R. Sandaltzopoulos, P. Spirakis, and A. Tatakis. FINE: Implementation of a Distributed Communication and Working Environment for Clinical Engineers. *Concurrent Engineering and Electronic Design Automation – CEE 1996*, pp. 56-60, 1996.

[C2] C. Bouras, D. Fotakis, V. Kapoulas, P. Lampsas, G. Papoutsopoulos, P. Spirakis, and A. Tatakis. Hippocrates: A Multimedia Tool for Distance Education. *Educational Multimedia and Hypermedia – ED-MEDIA 1995*, pp. 103-108, 1995.

[C1] C. Bouras, D. Fotakis, V. Kapoulas, S. Kontogiannis, P. Lampsas, P. Spirakis, and A. Tatakis. Multilingual Implementations of OSI Applications. *Computer and Information Sciences – ISCIS 1995*, pp. 367-374, 1995.

Technical Reports

[T2] D. Fotakis and P. Spirakis. Random Walks, Conditional Hitting Sets, and Partial Derandomization. *Electronic Colloquium on Computational Complexity (ECCC),* Technical Report 98-049, 1998.

[T1] D. Fotakis and P. Spirakis. Graph Properties that Facilitate Travelling. *Electronic Colloquium on Computational Complexity (ECCC)*, Technical Report 98-031, 1998.

PROFESSIONAL MEMBERSHIP

Association for Computing Machinery (ACM), European Association for Theoretical Computer Science (EATCS), Technical Chamber of Greece.