

ANTONIOS SYMVONIS / Αντώνιος ΣυμβώνηςCurriculum Vitae
March 2020**Personal details**

Date of Birth: 9 July 1964
 Marital status: Married, one child
 Citizenship: Greek, Australian

Contact address

Department of Mathematics
 School of Applied Mathematics and Physical Sciences
 National Technical University of Athens
 15780 Athens, Greece.

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Research interests

Theoretical aspects of Computer Science, focusing on algorithms and their complexity (graph drawing, graph theory, computational geometry). Data visualization. Data protection and security. Software development.

Γνωστικό Αντικείμενο: «Αλγόριθμοι και Πολυπλοκότητα»

Academic appointments

July 2010 – today	Professor Department of Mathematics, National Technical University of Athens.
August 2011 – July 2019	Hellenic Data Protection Authority Board Member
September 2009 – July 2013	Hellenic Open University Συνεργαζόμενο Εκπαιδευτικό Προσωπικό (ΣΕΠ).
May 2003 – July 2010	Associate Professor, Department of Mathematics, National Technical University of Athens.
June 2000 – May 2003	Associate Professor, Department of Mathematics, University of Ioannina. Research Associate, Department of Computer Science, University of Sydney.
January 1997 – June 2000:	Senior Lecturer, Department of Computer Science, University of Sydney.
January 1998 – December 1998:	Visiting Associate Professor, Department of Computer Science, Dartmouth College, USA.
September 1991 – December 1996:	Lecturer, Department of Computer Science, University of Sydney.
September 1987 – August 1991:	Teaching/research assistant, Department of Computer Science, University of Texas at Dallas.

Education

- **Ph.D. in Computer Science**, University of Texas at Dallas, August 1991.
Dissertation title: “Packet Routing Problems and High Resolution Graph Layouts”.
Supervisor: Prof. F. Makedon
- **M.Sc. in Computer Science**, University of Texas at Dallas, May 1989.
- **Diploma of Computer Engineering and Informatics**, Polytechnic School, University of Patras, Greece, June 1987.

Research Funding

1. **iRead: Infrastructure and integrated tools for personalized learning of reading skill.**
European Union Research and Innovation (Horizon H2020). ICT-22-2016 Technologies for Learning and Skills.
Primary Investigator. Scientific project coordinator. Grant agreement No.: 731724
2017-2020: €543,875 (Total budget: €5,144,673).
2. **iLearnRW: Integrated Intelligent LEARNING Environment for Reading and Writing .**
European Union Seventh Framework program (FP7). ICT-2011.8.1 Technology-enhanced learning.
Scientific project coordinator. In collaboration with Prof. Kollias (NTUA).
2012-2015: €339,680 (Total budget: €1,800,000).
3. **Graph Drawing with Emphasis in Security Applications**
Ministry of Education, Lifelong Learning and Religious Affairs, Program “Heraclitus II”
2011-2013: € 12,600
4. **Graph Theory Problem Solving with Emphasis in their Drawings.**
Ministry of Education, Lifelong Learning and Religious Affairs, Program “Heraclitus II”
2011-2012: € 22,500
5. **Label Placement Algorithms under the Boundary Labeling Model**
PEBE 2008--National Technical University of Athens research grant
2008-2009: € 12,600
6. **AGENT-DYSL: Accommodative intelliGENT educational environments for DYSLexic learners.**
European Union Sixth Framework program, Information Society Technologies, eInclusion.
Scientific project coordinator. In collaboration with Prof. Kollias (NTUA).
2006-2009: €418,160 (Total budget: €2,000,000).
7. **Labeling placement algorithms with applications to graph drawing and cartography.**
General Secretariat for Research and Technology, Ministry of Development. PENED program.
2005-2008: €46,500
8. **Optimal graph drawing algorithms**
Ministry of National Education and Religious Affairs, Program Pythagoras.
2004-2006: €50,000
9. **Design and Analysis of Simple Packet routing algorithms**
General Secretariat for Research and Technology, Ministry of Development. Greek-German Collaboration program.
2003-2004: €15,407
10. **Design and analysis of simple greedy dynamic on-line routing algorithms**
Australian Research Council.
1999: \$73,000,
2000: \$74,000, (approved; funding was suspended due to resignation from University of Sydney)
2001: \$63,000 (approved; funding was suspended due to resignation from University of Sydney)

11. **Combinatorial Algorithmic support for multimedia distribution**
Australian Research Council
2000: \$13,000
12. **Three-dimensional orthogonal graph drawings**
Australian Research Council
2000: \$20,000
13. **Transposition-based Routing Algorithms**
Australian Research Council
1995: \$15,000,
1996: \$15,000,
1997: \$15,000
14. **Parallel Heuristics**
University of Sydney Research Grant Scheme
1993:\$4,000.
15. **Graph Optimization Problems: High Resolution Layouts and Grid Searching**
University of Sydney Research Grant Scheme
1992: \$6,000

Editorship

- e-1. **Graph Drawing - 22nd International Symposium, GD 2014, Würzburg, Germany, September 24-26, 2014, Revised Selected Papers.**
Christian A. Duncan, Antonios Symvonis:
Lecture Notes in Computer Science 8871, Springer 2014, ISBN 978-3-662-45802-0

Journal publications

- j-1. **Planar drawings of fixed-mobile bigraphs.**
Michael A. Bekos, Felice De Luca, Walter Didimo, Tamara Mchedlidze, Martin Nöllenburg, Antonios Symvonis, Ioannis G. Tollis
Theor. Comput. Sci. 795: 408-419 (2019).
- j-2. **Greedy rectilinear drawings.**
Patrizio Angelini, Michael A. Bekos, Walter Didimo, Luca Grilli, Philipp Kindermann, Tamara Mchedlidze, Roman Prutkin, Antonios Symvonis, Alessandra Tappini
Theor. Comput. Sci. 795: 375-397 (2019).
- j-3. **Vertex-Coloring with Defects.**
P. Angelini, M. A. Bekos, F. De Luca, W. Didimo, M.Kaufmann, S. G. Kobourov, F. Montecchiani, C. N. Raftopoulou, V. Roselli, A. Symvonis
J. Graph Algorithms Appl. 21(3): 313-340 (2017).
- j-4. **Monotone Drawings of Graphs with Fixed Embedding.**
P. Angelini, W. Didimo, S. G. Kobourov, T. Mchedlidze, V. Roselli, A. Symvonis, S. K. Wismath
Algorithmica 71(2): 233-257 (2015).
- j-5. **Profile-Based Text Classification for Children with Dyslexia.**
C. Litsas, M. Mastropavlou, A. Symvonis
International Journal of Monitoring and Surveillance Technologies Research 3(1): 21-39 (2015).
- j-6. **Computing upward topological book embeddings of upward planar digraphs.**
F. Giordano, G. Liotta, T. Mchedlidze, A. Symvonis, S. Whitesides
J. Discrete Algorithms 30: 45-69 (2015).

- j-7. **Many-to-One Boundary Labeling with Backbones.**
M. A. Bekos, S. Cornelsen, M. Fink, Seok-Hee Hong, M. Kaufmann, M. Nöllenburg, I. Rutter, A. Symvonis
J. Graph Algorithms Appl. 19(3): 779-816 (2015).
- j-8. **Fan-planarity: Properties and complexity.**
C. Binucci, E. Di Giacomo, W. Didimo, F. Montecchiani, M. Patrignani, A. Symvonis, I. G. Tollis
Theor. Comput. Sci. 589: 76-86 (2015).
- j-9. **Making assistive reading tools user friendly: a new platform for Greek dyslexic students empowered by automatic speech recognition**
T. Athanaselis, S. Bakamidis, I. Dologlou, E. N. Argyriou, A. Symvonis
Multimedia Tools and Applications, Vol. 68, no. 3, pp. 681 - 699, 2014.
- j-10. **Maximizing the Total Resolution of Graphs**
E. N. Argyriou, M. A. Bekos, A. Symvonis.
The Computer Journal, Oxford Journals, Vol. 56, Issue 7, p.p. 887-900, 2013.
- j-11. **On upward point set embeddability**
M. Kauffmann, T. Mchedlidze, A. Symvonis.
Computational Geometry: Theory and Applications, 46(6): 774-804 (2013).
- j-12. **Smooth Orthogonal Layouts**
M. A. Bekos, M. Kaufmann, S. Kobourov, A. Symvonis
Journal of Graph Algorithms and Applications, Vol. 17, no. 5, pp. 575-595, 2013.
- j-13. **Geometric RAC Simultaneous Drawings of Graphs**
E. N. Argyriou, M. A. Bekos, M. Kauffmann, A. Symvonis.
Journal of Graph Algorithms and Applications, Volume 17, No. 1, pp. 11-34, 2013.
- j-14. **The Straight-Line RAC Drawing Problem is NP-Hard**
E. N. Argyriou, M. A. Bekos, A. Symvonis.
Journal of Graph Algorithms and Applications, Volume 16, No. 2, pp. 569-597, 2012.
- j-15. **Drawing trees in a streaming model**
C. Binucci, U. Brandes, G. Di Battista, W. Didimo, M. Gaertler, P. Palladino, M. Patrignani, A. Symvonis, K. A. Zweig.
Information Processing Letters, Volume 112, No. 11, pp. 418-422, 2012.
- j-16. **Crossing Optimal Acyclic HP-Completion for Outerplanar st-Digraphs**
T. Mchedlidze, A. Symvonis.
Journal of Graph Algorithms and Applications, Volume 15, No. 3, pp. 373-415, 2011.
- j-17. **Colored Simultaneous Geometric Embeddings and Universal Pointsets**
U. Brandes, C. Erten, A. Estrella-Balderrama, J. J. Fowler, F. Frati, M. Geyer, C. Gutwenger, S. Hong, M. Kaufmann, S. G. Kobourov, G. Liotta, P. Mutzel, A. Symvonis.
Algorithmica, Volume 60, No. 3, pp. 569-592, 2011.
- j-18. **On the Perspectives Opened by Right Angle Crossing Drawings**
P. Angelini, L. Cittadini, G. Di Battista, W. Didimo, F. Frati, M. Kaufmann, A. Symvonis.
Journal of Graph Algorithms and Applications, Volume 15, No. 1, pp. 53-78, 2011.
- j-19. **On Metro-Line Crossing Minimization**
E. Argyriou, M. Bekos, M. Kaufmann, A. Symvonis.
Journal of Graph Algorithms and Applications, Volume 14, No. 1, pp. 75-96, 2010.
- j-20. **Boundary Labeling with Octilinear Leaders**
M. Bekos, M. Kaufmann, M. Nollenberg, A. Symvonis.
Algorithmica, Volume 57, No. 3, pp. 436-461, 2010.
- j-21. **Area-Feature Boundary Labeling**
M. Bekos, M. Kaufmann, K. Potina, A. Symvonis.
The Computer Journal, Volume 53, No. 6, pp. 827-841, 2010.

- j-22. ***Efficient Labeling of Collinear Sites***
M. Bekos, M. Kaufmann, K. Potika, A. Symvonis.
Journal of Graph Algorithms and Applications, Volume 12, No. 3, pp. 357-380, 2008.
- j-23. ***Boundary Labeling: Models and Efficient Algorithms for Rectangular Maps***
M. Bekos, M. Kaufmann, A. Symvonis, A. Wolff.
Computational Geometry: Theory and Applications, Volume 36, No. 3, pp. 215-236, 2007.
- j-24. ***Video-on-Demand Based on Delayed-Multicast: Algorithmic Support***
N. Glinos, D. Hoang, C. Nguyen, A. Symvonis.
The Computer Journal, Volume 47, No. 5, pp. 545-559, 2004.
- j-25. ***Dimension-Exchange Algorithms for Token Distribution on Tree-Connected Architectures***
M. Houle, A. Symvonis, D. Wood.
Journal of Parallel and Distributed Computing, Volume 64, No. 5, pp. 591-605, 2004.
- j-26. ***Lower Bounds for One-to-one Packet Routing on Trees using Hot-Potato Algorithms***
A. Roberts, A. Symvonis, D. Wood.
The Computer Journal, Volume 45, No. 4, pp. 423-435, 2002.
- j-27. ***On the Routing Number of Complete d -ary Trees***
A. Roberts, A. Symvonis.
International Journal of Foundations of Computer Science, Volume 12, No. 4, pp. 411-434, 2001.
- j-28. ***Potential-function-based Analysis of an off-line Heap Construction Algorithm***
A. Roberts, A. Symvonis.
Journal for Universal Computer Science, Volume 6, No. 2, pp. 240-255, 2000.
- j-29. ***Three-Dimensional Orthogonal Graph Drawing Algorithms***
P. Eades, A. Symvonis, S. Whitesides.
Discrete Applied Mathematics, Volume 103, No. 1-3, pp. 55-87, 2000.
- j-30. ***A Note on Deflection Worm Routing on Meshes.***
A. Symvonis.
Information Processing Letters, Volume 71, No. 5-6, pp. 235-239, 1999.
- j-31. ***On-line Matching Routing on Trees***
A. Roberts, A. Symvonis.
Theoretical Computer Science. Volume 220, No. 2, pp. 469-488, 1999.
- j-32. ***A Note on Parallel Algorithms for Optimal h - v Drawings of Binary Trees***
T. Metaxas, G. Pantziou, A. Symvonis.
Computational Geometry: Theory and Applications, Volume 9, No. 3, pp. 145-158, 1998.
- j-33. ***Many-to-Many Routing on Trees via Matchings***
G. Pantziou, A. Roberts, A. Symvonis.
Theoretical Computer Science, Volume 185, No. 2, pp. 347-377, 1997.
- j-34. ***Heuristic Methods for Permutation Routing on Meshes and Tori***
F. Makedon, A. Symvonis.
Computer Systems: Science and Engineering, Volume 12, No. 6, pp. 373-380, 1997.
- j-35. ***A General Method for Deflection Worm Routing on Meshes Based on Packet Routing Algorithms***
A. Roberts, A. Symvonis.
IEEE Transactions on Parallel and Distributed Systems, Volume 8, No. 8, pp. 781-789, 1997.
- j-36. ***An Empirical Study of Off-Line Permutation Packet Routing on 2-Dimensional Meshes Based on the Multistage Routing Method***
A. Symvonis, J. Tidswell.
IEEE Transactions on Computers, Volume 45, No. 5, pp. 619-625, May 1996.
- j-37. ***Routing on Trees***
A. Symvonis.
Information Processing Letters, Volume 57, No. 4, pp. 215-223, 1996.

- j-38. ***Flit-Serial Packet Routing on Meshes and Tori***
F. Makedon, A. Symvonis.
Mathematical Systems Theory, Volume 29, No. 4, pp. 311-330, 1996.
- j-39. ***Optimal Stable Merging***
A. Symvonis.
The Computer Journal, Volume 38, No. 8, pp. 681-690, 1995.
- j-40. ***Optimal Algorithms for Multipacket Routing Problems on Rings***
F. Makedon, A. Symvonis.
Journal of Parallel and Distributed Computing, Volume 22, No. 1, pp. 37-43, 1994.
- j-41. ***Searching a Solid Pseudo 3-Sided Solid Orthoconvex Grid***
A. Symvonis, S. Tragoudas.
International Journal of Foundations of Computer Science, Volume 4, No. 4, pp. 325-353, 1993.
- j-42. ***Drawing Graphs in the Plane with High Resolution***
M. Formann, T. Hagerup, J. Haralambides, M. Kaufmann, F. T. Leighton, A. Symvonis, E. Welzl, G. Woeginger.
SIAM Journal on Computing, Volume 22, No. 5, pp. 1035-1052, 1993.
- j-43. ***Optimal Algorithms for the Many-to-One Routing Problem on 2-Dimensional Meshes***
F. Makedon, A. Symvonis.
Journal of Microprocessors and Microsystems, Volume 17, No. 6, pp. 361-367, 1993.
- j-44. ***An Efficient Heuristic for Permutation Packet Routing on Meshes with Low Buffer Requirements*** F. Makedon, A. Symvonis.
IEEE Transactions on Parallel and Distributed Systems, Volume 4, No. 3, pp. 270-277, 1993.

Conference publications

- c-1. ***Interactive and Personalized Activity eBooks for Learning to Read: The iRead Case.***
N. Deligiannis, D. Panagiotopoulos, P. Patsilinakos, C. N. Raftopoulou and A. Symvonis
Proceedings of the First Workshop on Intelligent Textbooks co-located with 20th International Conference on Artificial Intelligence in Education (AIED 2019), iTextbooks@AIED, Chicago, IL, USA, June 25, 2019. CEUR Workshop Proceedings 2384: 57-69
- c-2. ***Towards Evidence-informed Design Principles for Adaptive Reading Games.***
M. Mavrikis, A.a Vasalou, L. Benton, C. N. Raftopoulou, A. Symvonis, K. Karpouzis and D. Wilkins
Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems, CHI 2019, Glasgow, Scotland, UK, May 04-09, 2019. ACM 2019.
- c-3. ***Drawing planar graphs with few segments on a polynomial grid.***
P. Kindermann, T. Mchedlidze, T. Schneck and A. Symvonis.
Graph Drawing and Network Visualization - 27th International Symposium, GD 2019, Prague, Czech Republic, September 17-20, 2019. Lecture Notes in Computer Science 11904: 416-429, Springer 2019.
- c-4. ***Geometric Representations of Dichotomous Ordinal Data.***
P. Angelini, Michael A. Bekos, Martin Gronemann, Antonios Symvonis
Graph-Theoretic Concepts in Computer Science - 45th International Workshop, WG 2019, Vall de Núria, Spain, June 19-21, 2019, Revised Papers. Lecture Notes in Computer Science 11789: 205-217, Springer 2019.
- c-5. ***Monotone Drawings of k-Inner Planar Graphs***
A. Oikonomou and A. Symvonis
Graph Drawing and Network Visualization - 26th International Symposium, GD 2018, Barcelona, Spain, September 26-28, 2018. Lecture Notes in Computer Science 11282: 347-353. Springer 2018.

- c-6. ***Greedy Rectilinear Drawings***
P. Angelini, M. A. Bekos, W. Didimo, L. Grilli, P. Kindermann, T. Mchedlidze, R. Prutkin, A. Symvonis and A. Tappini
Graph Drawing and Network Visualization - 26th International Symposium, GD 2018, Barcelona, Spain, September 26-28, 2018. Lecture Notes in Computer Science 11282: 495-508. Springer 2018.
- c-7. ***Interactive Personalized eBooks for Education***
S. Droutsas, P. Patsilinakos and A. Symvonis
9th International Conference on Information, Intelligence, Systems and Applications, IISA 2018, Zakynthos, Greece, July 23-25, 2018. IEEE Computer Society: 1-8
- c-8. ***Planar Drawings of Fixed-Mobile Bigraphs***
M. Bekos, F. De Luca, W. Didimo, T. Mchedlidze, M. Nöllenburg, A. Symvonis and I. Tollis
Graph Drawing and Network Visualization - 25th International Symposium, GD 2017, Boston, MA, USA, September 25-27, 2017. Lecture Notes in Computer Science 10692: 426-439. Springer 2018.
- c-9. ***Simple Compact Monotone Tree Drawings***
A. Oikonomou and A. Symvonis
Graph Drawing and Network Visualization - 25th International Symposium, GD 2017, Boston, MA, USA, September 25-27, 2017. Lecture Notes in Computer Science 10692: 326-333. Springer 2018.
- c-10. ***Rooted Uniform Monotone Minimum Spanning Trees.***
K. Mastakas, A. Symvonis
Algorithms and Complexity - 10th International Conference, CIAC 2017, Athens, Greece, May 24-26, 2017, Lecture Notes in Computer Science 10236, 2017: 405-417.
- c-11. ***Low Ply Drawings of Trees.***
P. Angelini, M. A. Bekos, T. Bruckdorfer, J. Hancl Jr., M. Kaufmann, S. G. Kobourov, A. Symvonis, P. Valtr
Graph Drawing and Network Visualization - 24th International Symposium, GD 2016, Athens, Greece, September 19-21, 2016, Lecture Notes in Computer Science 9801: 236-248.
- c-12. ***A data-logging mechanism to support e-learning systems.***
C. Bruda, C. Litsas, C. Mihu, I. Mihu, A. Symvonis
6th International Conference on Information, Intelligence, Systems and Applications, IISA 2015, Corfu, Greece, July 6-8, 2015. IEEE 2015, ISBN 978-1-4673-9311-9: 1-4.
- c-13. ***Low ply graph drawing.***
E. Di Giacomo, W. Didimo, Seok-Hee Hong, M. Kaufmann, S. G. Kobourov, G. Liotta, K. Misue, A. Symvonis, Hsu-Chun Yen
6th International Conference on Information, Intelligence, Systems and Applications, IISA 2015, Corfu, Greece, July 6-8, 2015. IEEE 2015, ISBN 978-1-4673-9311-9: 1-6.
- c-14. ***On the construction of increasing-chord graphs on convex point sets.***
K. Mastakas, A. Symvonis
6th International Conference on Information, Intelligence, Systems and Applications, IISA 2015, Corfu, Greece, July 6-8, 2015. IEEE 2015, ISBN 978-1-4673-9311-9: 1-6.
- c-15. ***Text Classification for Children with Dyslexia employing User Modelling Techniques***
C. Litsas, M. Mastropavlou and A. Symvonis
Proc. of *5th International Conference on Information, Intelligence, Systems and Applications (IISA 2014)*, Chania, Greece, July 7-9 2014, pp. 1-6.
- c-16. ***A Fraud Detection Visualization System Utilizing Radial Drawings and Heat-maps***
E. N. Argyriou, A. Symvonis, V. Vassiliou
Proc. of *9th International Conference on Information Visualization Theory and Applications (IVAPP 2014)*, Lisbon, Portugal, January 5-7, 2014, pp. 153 - 160.
- c-17. ***Occupational Fraud Detection through Visualization***
E.N. Argyriou, A. Sotiraki, A. Symvonis
Proc. IEEE Intelligence and Security Informatics 2013 (ISI 2013), Seattle, USA, June 4-7, 2013, pp. 4-7.

- c-18. ***Smooth Orthogonal Layouts***
M. A. Bekos, S. Kobourov, M. Kaufmann, A. Symvonis.
Proc. 20th International Symposium on Graph Drawing (GD 2012), Redmond, Washington, USA, September 19-21, 2012. LNCS 7704, pp. 150-161, 2012.
- c-19. ***Detecting Periodicity in Serial Data through Visualization***
E. N. Argyriou, A. Symvonis.
Proc. 8th International Symposium on Visual Computing (ISVC 2012), Rethymnon, Crete, Greece, July 16-18, 2012, LNCS 7432, pp. 295-304, 2012.
- c-20. ***Geometric RAC Simultaneous Drawings of Graphs***
E. N. Argyriou, M. A. Bekos, M. Kaufmann, A. Symvonis.
Proc. 18th International Computing and Combinatorics Conference (COCOON 2012), Sydney, Australia, August 20-22, 2012. LNCS 7433, pp. 287-298, 2012.
- c-21. ***Upward point-set embeddability for convex point sets is in P***
M. Kaufmann, T. Mchedlidze, A. Symvonis.
Proc. 19th International Symposium on Graph Drawing (GD 2011), Eindhoven, Holland, September 21-23, 2011. LNCS 7034, pp. 403-414, 2012.
- c-22. ***Monotone Drawings of Graphs with Fixed Embedding***
P. Angelini, W. Didimo, S. Kobourov, T. Mchedlidze, V. Roselli, A. Symvonis, S. Wismath.
Proc. 19th International Symposium on Graph Drawing (GD 2011), Eindhoven, Holland, September 21-23, 2011. LNCS 7034, pp. 379-390, 2012.
- c-23. ***Combining Problems on RAC Drawings and Simultaneous Graph Drawings***
E. N. Argyriou, M. A. Bekos, M. Kaufmann, A. Symvonis.
Proc. 19th International Symposium on Graph Drawing (GD 2011), Eindhoven, Holland, September 21-23, 2011. LNCS 7034, pp. 433-434, 2012.
- c-24. ***The Straight-Line RAC Drawing Problem is NP-Hard***
E. N. Argyriou, M. A. Bekos, A. Symvonis.
Proc. 37th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2011), Nový Smokovec, Slovakia, January 22-28, 2011. LNCS 6543, pp. 74-85, 2011.
- c-25. ***Incorporating Speech Recognition Engine into an Intelligent Assistive Reading System for Dyslexic Students***
T. Athanaselis, S. Bakamidis, I. Dologlou, E. N. Argyriou, A. Symvonis.
Proc. Annual Conference of the International Speech Communication Association (INTERSPEECH 2011), Florence, Italy, August 28-31, 2011, pp. 2993-2996, 2011.
- c-26. ***Upward Point-Set Embeddability***
M. Geyer, M. Kaufmann, T. Mchedlidze, A. Symvonis.
Proc. 37th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2011), Nový Smokovec, Slovakia, January 22-28, 2011. LNCS 6543, pp. 272-283, 2011.
- c-27. ***Combining Traditional Map Labeling with Boundary Labeling***
M. A. Bekos, M. Kaufmann, D. Papadopoulos, A. Symvonis.
Proc. 37th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2011), Nový Smokovec, Slovakia, January 22-28, 2011. LNCS 6543, pp. 111-122, 2011.
- c-28. ***Upward Geometric Graph Embeddings into Point Sets***
P. Angelini, F. Frati, M. Geyer, M. Kaufmann, T. Mchedlidze, A. Symvonis.
Proc. 18th International Symposium on Graph Drawing (GD 2010), Konstanz, Germany, September 21-24, 2010. LNCS 6502, pp. 25-37, 2011.
- c-29. ***Maximizing the Total Resolution of Graphs***
E. N. Argyriou, M. A. Bekos, M. Kaufmann, A. Symvonis.
Proc. 18th International Symposium on Graph Drawing (GD 2010), Konstanz, Germany, September 21-24, 2010. LNCS 6502, pp. 62-67, 2011.
- c-30. ***Unilateral Orientation of Mixed Graphs***
T. Mchedlidze, A. Symvonis.

- Proc. 36th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2010)* Spindleruv Mlyn, Czech Republic, , January 23-29, 2010. LNCS 5901, pp. 588-599, 2010.
- c-31. ***Crossing-Free Acyclic Hamiltonian Path Completion for Planar st-Digraphs***
T. Mchedlidze, A. Symvonis.
20th International Symposium on Algorithms and Computation (ISAAC 2009), Hawaii, USA, December 16-18, 2009. LNCS 5878, pp. 882-891, 2009.
- c-32. ***On the Perspectives Opened by Right Angle Crossing Drawings***
P. Angelini, L. Cittadini, G. Di Battista, W. Didimo, F. Frati, M. Kaufmann A. Symvonis.
Proc. 17th International Symposium on Graph Drawing (GD 2009), Chicago, Illinois, USA, September 22 - 25, 2009. LNCS 5849, pp. 21-32, 2010.
- c-33. ***Drawing Trees in a Streaming Model***
C. Binucci, U. Brandes, G. Di Battista, W. Didimo, M Gaertler, P. Palladino, M. Patrignani, A. Symvonis, K. Zweig.
Proc. 17th International Symposium on Graph Drawing (GD 2009), Chicago, Illinois, USA, September 22 - 25, 2009. LNCS 5849, pp. 292-303, 2010.
- c-34. ***On rho-Constrained Upward Topological Book Embeddings***
T. Mchedlidze, A. Symvonis.
Proc. 17th International Symposium on Graph Drawing (GD 2009), Chicago, Illinois, USA, September 22 - 25, 2009. LNCS 5849, pp. 411-412, 2010.
- c-35. ***Crossing-optimal acyclic HP-completion for outerplanar st-digraphs***
T. Mchedlidze, A. Symvonis.
15th International Computing and Combinatorics Conference (COCOON 2009), Niagara Falls, New York, USA, July 2009. LNCS 5609, pp. 76-85, 2009.
- c-36. ***Crossing-Optimal Acyclic Hamiltonian Path Completion and its Application to Upward Topological Book Embeddings***
T. Mchedlidze, A. Symvonis.
Third Annual Workshop on Algorithms and Computation (WALCOM 2009), Kolkata, India, February 2009. LNCS 5431, pp. 250-261, 2009.
- c-37. ***Two Polynomial Time Algorithms for the Metro-Line Crossing Minimization Problem***
E. Argyriou, M. Bekos, M. Kaufmann, A. Symvonis.
Proc. 16th International Symposium on Graph Drawing (GD 2008), Crete, Greece, September 2008. In I.G. Tollis, M. Patrignani (Eds), LNCS 5417, pp. 336-347, 2009.
- c-38. ***Spine Crossing Minimization in Upward Topological Book Embeddings***
T. Mchedlidze, A. Symvonis.
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5th International Symposium on Algorithms and Computation (ISAAC 1994), Beijing, China, August 25-27, 1994. LNCS 834, pp. 487-495, 1994.

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F. Makedon, A. Symvonis.
19th Annual ACM Computer Science Conference, San Antonio, Texas, March 1991, pp. 280-288.
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31st IEEE Symposium on Foundations of Computer Science (FOCS 1990), St. Louis, Missouri, October 1990, pp. 86-95.
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J. Haralambides, A. Symvonis.
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- c-78. **On Bit-Serial Routing for the Mesh and the Torus**
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3rd Symposium on the Frontiers of Massively Parallel Computation, College Park, Maryland, October 1990, pp. 294-302.
- c-79. **Fast Parallel Communication on Mesh Connected Machines with Low Buffer Requirements**
F. Makedon, A. Symvonis.
1990 IEEE International Conference on Computer Design (ICCD 1990), Cambridge, Massachusetts, September 1990, pp. 78-81.

Professional service

Editorship

- *Journal of Graph Algorithms and Applications.*
Member of the Editorial Board.
- *Journal of Discrete Mathematics.*
Member of the Editorial Board.
- *Journal for Universal Computer Science.*
Electronic Journal. Member of the Board of Foundation Editors.
- *GD'14 - Proceedings of the 22nd International Symposium on Graph Drawing*, Würzburg, Germany, September 2014. Lecture Notes in Computer Science (LNCS) 8871, Christian Duncan, Antonios Symvonis (Eds).
- *AWOCA'96 - Proceedings of the Seventh Australian Workshop on Combinatorial Algorithms*, Magnetic Island, July 1996, Australia (Editor). Technical Report TR 508, Basser Dept of Computer Science, University of Sydney.

Journal refereeing

- Algorithmica
- Australian Computer Journal
- Computational Geometry: Theory and Applications
- Computer Systems Science and Engineering
- IEEE Transactions on Computers
- IEEE Transactions on Communications
- IEEE Transactions on Parallel and Distributed Systems
- Information and Computation
- International Journal of Foundations of Computer Science
- Journal for Universal Computer Science
- Journal of ACM
- Journal of Algorithms
- Journal of Combinatorial Optimization
- Journal of Graph Algorithms and Applications
- Journal of Parallel and Distributed Computing
- Mathematical Reviews
- Mathematical Systems Theory
- Networks
- SIAM Journal on Computing
- SIAM Journal on Discrete Mathematics
- Software Practice and Experience
- The Computer Journal
- Theoretical Computer Science

Program Committees

- *GD2017, 25th International Symposium on Graph Drawing and Network Visualization*, September 2017, Boston, USA.
- *GD 2016, 24th International Symposium on Graph Drawing and Network Visualization*, September 2016, Athens, Greece. Chair of the Organizing Committee.
- *IISA2016, 7th International Conference on Information, Intelligence, Systems and Applications*,

- July 2013, Marmaras, Chalkidiki, Greece. Co-Chair of Special Session on ***Graph and Network Visualization***.
- ***IISA2015, 6th International Conference on Information, Intelligence, Systems and Applications***,
July 2013, Corfu, Greece. Co-Chair of Special Sessions on ***Graph and Network Visualization*** and ***Technology for Supporting Reading and Writing***.
 - ***GD2014, 22nd International Symposium on Graph Drawing***,
September 2014, Würzburg, Germany. PC co-Chair.
 - ***IISA2014, 5th International Conference on Information, Intelligence, Systems and Applications***,
July 2013, Chania, Greece. Co-Chair of Special Session on ***Graph and Network Visualization***.
 - ***IISA2013, 4th International Conference on Information, Intelligence, Systems and Applications***,
July 2013, Piraeus, Greece. Co-Chair of Special Session on ***Data Protection and Security***.
 - ***GD2013, 21st International Symposium on Graph Drawing***,
September 2013, Bordeaux (Talence), France.
 - ***GD2010, 18th International Symposium on Graph Drawing***,
September 2010, Konstanz, Germany.
 - ***ACSC2010, 33rd Australasian Computer Science Conference***,
January 2010, Brisbane, Australia.
 - ***ACSC2009, 32nd Australasian Computer Science Conference***,
January 2009, Wellington, New Zealand.
 - ***GD2008, 16th International Symposium on Graph Drawing***,
September 2008, Heraklion, Greece.
 - ***PCI2005, 10th Panhellenic Conference on Informatics***,
November 2005, Volos, Greece.
 - ***SIROCCO 2003, 10th International Colloquium on Structural Information and Communication Complexity***,
Umeå University, June 2003, Sweden.
 - ***PART-99, Fifth Australasian Conference on Parallel and Real-Time Systems***
November 1999, Melbourne, Australia.
 - ***ISAAC'99, International Symposium on Algorithms and Computation***
December 1999, Madras, India
 - ***PART-98, Fourth Australasian Conference on Parallel and Real-Time Systems***
September 1998, Perth, Australia.
 - ***CATS'98, Computing: The Australasian Theory Symposium***
February 1998, Perth, Australia.
 - ***PART-97, Fourth Australasian Conference on Parallel and Real-Time Systems***
September 1997, Newcastle, Australia.
 - ***AWOCA'97, Australasian Workshop on Combinatorial Algorithms***
July 1997, Brisbane, Australia.
 - ***ED-MEDIA'97, World Conference on Educational Multimedia and Hypermedia***
June 1997, Calgary, Canada.
 - ***CATS'97, Computing: The Australasian Theory Symposium***
February 1997, Sydney, Australia.

- ***PART-96, Third Australasian Conference on Parallel and Real-Time Systems***
September 1996, Brisbane, Australia.
- ***ED-MEDIA'96, World Conference on Educational Multimedia and Hypermedia***
June 1996, Boston, USA.
- ***AWOCA'96, Australasian Workshop on Combinatorial Algorithms***
July 1996, Magnetic Island, Australia.
- ***CATS'96, Computing: The Australasian Theory Symposium***
January 1996, Melbourne, Australia.

Teaching experience

- ***Data Visualization*** (graduate course)
NTUA (2018)
- ***Graph Drawing*** (graduate course)
NTUA (2005-2012, 2014, 2016).
- ***Graph Theory***
NTUA (2013-2018)
- ***Διακριτά Μαθηματικά και Μαθηματική Λογική – ΠΛΗ20***
Ελληνικό Ανοικτό Πανεπιστήμιο (2009-2012)
- ***Data Structures***
NTUA (2004-2018),
University of Sydney (1994-1997).
- ***Algorithms and Complexity***
NTUA (2005-2018),
University of Ioannina (2001, 2003),
University of Sydney (1992-1995, 1999),
Dartmouth College(1998).
- ***Introduction to Object Oriented Programming***
NTUA (2018)
- ***Object Oriented Programming*** (graduate course, supervision)
NTUA (2006-2011).
- ***Introduction to programming*** (Java)
NTUA (2003-2017),
University of Ioannina (2001, 2002).
- ***Design and Development of Computer applications*** (Programming in Java)
NTUA (2004-2017).
- ***Object Oriented Programming*** (Java)
University of Ioannina (2002).
- ***Data Bases***
University of Ioannina (2000, 2002),
University of Sydney (1999).
- ***Theory of Computation***
University of Ioannina (2000, graduate course),
University of Sydney (1996-1997).
- ***Concepts in Computing***
Dartmouth College (1998).
- ***Data Compression with Applications to Multimedia Systems*** (graduate course),
University of Sydney (1997).

- **Large Programming Project**
University of Sydney (1996).
- **Introduction to Parallel Processing** (graduate course)
University of Sydney (1992-1994).
- **Formal Programming**
University of Sydney (1992-1993).
- **Discrete Mathematics**
University of Texas at Dallas (1990).

Ph.D. student supervision

1. **Eymorfia Argyriou**, Ph.D. (2008--2013)
Title: «Graph Drawing with emphasis on Computer Security Applications. Supervisor.
– MS (2006-2008), Thesis Title: Planarity testing algorithms. Supervisor.
2. **Tamara Mchedlidze**, Ph.D. (2008--2012)
Title: Graph theory problems with emphasis on graph drawing. Supervisor.
– MS (2006-2008), Thesis Title: Upward point embeddings. Supervisor.
3. **Michael Bekos** Ph.D. (2004--2008)
Title: Map Labelling Algorithms with Application in Graph Drawing and Cartography. Supervisor.
– MS (2002-2004), Thesis Title: Map labeling. Supervisor
4. **Chi Nguyen**, Ph.D. (1999-- 2003)
Title: Resource allocation algorithms. Supervisor.
5. **A. Roberts**, Ph.D. (1993-1998)
Title: Packet routing algorithms; Supervisor.
Best Australian Ph.D. Dissertation Award, 1998.
6. **D. Abuaiadh**, Ph.D. (1991-1995); Associate supervisor.