

# CURRICULUM VITAE

**FIRST NAME:** Nikolaos  
**LAST NAME:** Papaspyrou  
**DATE OF BIRTH:** January 26, 1971  
**NATIONALITY:** Greek  
**MARITAL STATUS:** Married, two children  
**LANGUAGES:** Greek, English (fluent), French (good), German (basic)  
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## POSITION

2013– Associate Professor, School of Electrical and Computer Engineering, National Technical University of Athens, Greece.  
2006–2013 Assistant Professor, School of Electrical and Computer Engineering, National Technical University of Athens, Greece.  
2002–2006 Lecturer, School of Electrical and Computer Engineering, National Technical University of Athens, Greece.

## RESEARCH INTERESTS

*Theory and implementation of programming languages:* type systems, semantics, program verification, mechanized theorem proving, compilers, static analysis, functional programming and monads.

## STUDIES

1994–1998 Ph.D. in Computer Science, Department of Electrical and Computer Engineering, National Technical University of Athens, Greece.  
1993–1994 Master of Science, Computer Science Department, Cornell University, Ithaca, NY.  
1988–1993 Diploma of Electrical and Computer Engineer (specialization: Computer Science), National Technical University of Athens, Greece

## RECENT RESEARCH EXPERIENCE

2012–2014 Research project “SemNatComp: Semantic Models and Technologies for Natural Computations”, funded by the Greek Secretariat of Research and Technology, and the European Regional Development Fund, programme “Competitiveness Entrepreneurship & Regions in Transition”, action “Bilateral Co-operation Greece-Romania 2011-2012”. Coordinator for the NTUA–ICCS. Budget: € 15.000.  
2012-2016 Research project “Handling Uncertainty in Data Intensive Applications on a Distributed Computing Environment (Cloud Computing)” (THALES MIS 380153), funded by the European Social Fund and Greek national funds through the Operational Program “Education and Lifelong Learning” of the National Strategic Reference Framework.  
2011-2014 Research project “RELEASE: A High-level Paradigm for Reliable Large-scale Server Software”, funded by the European Union FP7 STREP (IST-2011-287510). Coordinator for the NTUA–ICCS. Budget: € 259.408.  
2010-2012 Research project “Safety Properties for Concurrent Programming Languages”, funded by the NTUA. Coordinator. Budget: € 15.000.

- 2006–2009 Research project “Declarative Programming Languages: Extensions, Implementations and Applications in Software Development and the World-Wide-Web”, funded by the Greek Secretariat of Research and Technology, programme ΠΕΝΕΔ 2003. Coordinator for the NTUA. Budget: € 75.000.
- 2006–2009 Research project “Analysis of the System ABEKT at the Level of Architecture and Source Code”, funded by the National Hellenic Research Foundation, National Documentation Center. Budget: € 8.330.
- 2004–2006 Research project “Theory of Algorithms and Logic: Applications in Computer Science”, funded by the Greek Ministry for Education and the European Union, programme ΕΠΕΑΕΚ II, “Pythagoras: Support of Research Teams in the National Technical University of Athens”. Budget: € 62.000.
- 2004–2005 Research project “TELL: Towards Effective Network Supported Collaborative Learning Activities”, funded by the European Union programme e-Learning. Coordinator for NTUA–ICCS. Budget: € 43.319.
- 2003–2005 Research project “Continuations and Monads for Parallel and Distributed Computing”, funded by the Greek Secretariat for Research and Technology, bilateral Greek-Romanian research collaboration 2002-2005. Coordinator for the NTUA. Budget: € 12.169.

## TEACHING EXPERIENCE

- 2002– Instructor at the School of Electrical and Computer Engineering of the National Technical University of Athens, Greece. *Courses:*
- **Introduction to Programming**, 1st semester: 2002-03 until today. Co-instructors: S. Zachos, A. Pagourtzis, D. Fotakis.
  - **Programming Languages I**, 6th semester: 2008-09 until today. Co-instructor: K. Sagonas.
  - **Compilers**, 8th semester: 2002-03 until today. Co-instructor: K. Sagonas.
  - **Programming Languages II**, 9th semester: 2001-02 until today. Co-instructor: K. Sagonas.
  - **Type Systems for Programming Languages**, post-graduate: 2004-05 until today.
- Courses taught in previous years:*
- **Programming Techniques**, 2nd semester: 2002-03 until 2005-06. Co-instructor: I. Maistros.
  - **Software Engineering**, 9th semester: 2003-04, 2004-05. Co-instructors: V. Vescoukis, A. Papasalouros.
  - **Introduction to Computers**, 1st semester, School of Applied Mathematical and Physical Sciences: 2002-03. Co-instructor: S. Zachos.
- 2001 Short-term professor, Department of Electrical and Computer Engineering, National Technical University of Athens, Greece. *Courses:*
- **Programming Techniques**, 2nd semester: 2001-02.
- 2000 Short-term professor, Department of Electronic and Computer Engineering, Technical University of Crete, Chania, Greece. *Courses:*
- **LOG102: Software Engineering I** (C, programming techniques and data structures), 2nd semester: 2000-01.
  - **LOG201: Software Engineering II** (C++ and Unix systems programming), 4th semester: 2000-01.

## DISSERTATIONS

- T3. Nikolaos S. Papaspyrou, *A formal semantics for the C programming language*, Ph.D. thesis, National Technical University of Athens, Department of Electrical and Computer Engineering, Division of Computer Science, February 1998.
- T2. Nikolaos S. Papaspyrou, “A Proof Editor for Propositional and Predicate Calculus”, Master’s thesis, Cornell University, Department of Computer Science, January 1995.
- T1. Nikolaos S. Papaspyrou, “ARGUS: A Simulation Program Generator”, Diploma Project, National Technical University of Athens, Department of Electrical and Computer Engineering, Division of Computer Science, July 1993.

## MANUSCRIPTS

- B1. Nikolaos S. Papaspyrou and Emmanuel St. Skordalakis, *Compilers*, ISBN: 960-266-135-6, Symmetria, Athens, Greece, 2002.

## TRANSLATIONS

- t1. Michael L. Scott, *Programming Language Pragmatics*, ISBN: 978-960-461-230-7, Kleidarithmos, 2009. Translated by: Nikolaos S. Papaspyrou. Original: 2nd (US) edition, Morgan Kaufmann, 2006.

## PUBLICATIONS IN JOURNALS

- J20. Georgios Fourtounis, Nikolaos S. Papaspyrou and Panagiotis Theofilopoulos, “Modular Polymorphic Defunctionalization”, *Computer Science and Information Systems*, vol. 11, no. 4, pp. 1417–1434, October 2014.
- J19. Prodromos Gerakios, Nikolaos Papaspyrou and Konstantinos Sagonas, “Static Safety Guarantees for a Low-level Multithreaded Language with Regions”, *Science of Computer Programming*, vol. 80, pp. 223–263, February 2014.
- J18. Angelos Charalambidis, Athanasios Grivas, Nikolaos S. Papaspyrou and P. Rondogiannis, “Efficient Intensional Implementation for Lazy Functional Languages”, *Mathematics in Computer Science*, vol. 2, no. 1, pp. 123–141, November 2008.
- J17. Michael Lampis, Kyriakos G. Ginis, Michalis A. Papakyriakou and Nikolaos S. Papaspyrou, “Quantum Data and Control Made Easier”, *Electronic Notes in Theoretical Computer Science*, vol. 210, pp. 85–105, July 2008.
- J16. Zhong Shao, Valery Trifonov, Bratin Saha and Nikolaos Papaspyrou, “A Type System for Certified Binaries”, *ACM Transactions on Programming Languages and Systems*, vol. 27, no. 1, pp. 1–45, January 2005.
- J15. Petros Georgiakakis, Andreas Papasalouros, Symeon Retalis, Kostas Siassiakos and Nikolaos Papaspyrou, “Evaluating the Usability of Web-Based Learning Management Systems”, *THEMES in Education*, vol. 6, no. 1, pp. 45–59, 2005. Special issue: “ICT in Diaspora”, P. Zaphiris, N. Lambropoulos and G. Zacharia, editors.
- J14. Enea Todoran, Florian M. Boian, Cornelia Melenti and Nikolaos Papaspyrou, “Continuations for Remote Objects Control”, *Studia Universitatis Babeş-Bolyai, Informatica*, vol. 50, no. 1, pp. 21–37, 2005.

- J13. Eneia Todoran, Paulina Mitrea and Nikolaos Papaspyrou, “Comparative Semantics for the Basic Andorra Model”, *Automation, Computers, Applied Mathematics, (Scientific Journal of the Faculty of Automation and Computer Science, Technical University of Cluj-Napoca, Romania)*, vol. 14, no. 1, pp. 27–41, 2005.
- J12. Andreas Papasalouros, Symeon Retalis and Nikolaos Papaspyrou, “Semantic Description of Educational Adaptive Hypermedia Based on a Conceptual Model”, *Educational Technology and Society*, vol. 7, no. 4, pp. 129–142, October 2004.
- J11. Nikolaos S. Papaspyrou and Ioannis T. Kassios, “GLU<sup>‡</sup> Embedded in C++: A Marriage between Multidimensional and Object-Oriented Programming”, *Software Practice and Experience*, vol. 34, no. 7, pp. 609–630, June 2004.
- J10. Eneia Todoran, Nikolaos Papaspyrou, Florian Boian and Cosmina Ivan, “Continuation Semantics for Concurrency and Concurrent Languages Prototyping”, *Scientific Annals of Cuza University*, vol. 15, pp. 22–37, 2004.
- J9. Paris Avgeriou, Symeon Retalis and Nikolaos Papaspyrou, “Modeling Learning Technology Systems as Business Systems”, *Software and Systems Modeling*, vol. 2, no. 2, pp. 120–133, July 2003.
- J8. Eneia Todoran and Nikolaos Papaspyrou, “CSC in Concurrent Languages Prototyping”, *Automation, Computers, Applied Mathematics, (Scientific Journal of the Faculty of Automation and Computer Science, Technical University of Cluj-Napoca, Romania)*, vol. 2, no. 1, pp. 35–46, 2003.
- J7. Nikolaos S. Papaspyrou, “Denotational Semantics of ANSI C”, *Computer Standards and Interfaces*, vol. 23, no. 3, pp. 169–185, July 2001.
- J6. Nikolaos S. Papaspyrou and Dragan Mačoš, “A Study of Evaluation Order Semantics in Expressions with Side Effects”, *Journal of Functional Programming*, vol. 10, no. 3, pp. 120–133, May 2000.
- J5. Nikolaos Papaspyrou, Symeon Retalis, Sofoklis Efremidis, Gerasimos Barlas and Emmanuel Skordalakis, “Web-based Teaching in Software Engineering”, *Advances in Engineering Software*, vol. 30, no. 12, pp. 901–906, December 1999.
- J4. Nikolaos S. Papaspyrou, Cleo E. Sgouropoulou and Emmanuel S. Skordalakis, “A Model of Collaborating Agents for Content-Based Electronic Document Filtering”, *Journal of Intelligent and Robotic Systems*, vol. 26, no. 2, pp. 199–213, October 1999.
- J3. Symeon Retalis, Vassilis Makrakis, Nikos Papaspyrou and Manolis Skordalakis, “A Case Study of an Enriched Classroom Model Based on the World Wide Web”, *Active Learning*, no. 8, pp. 15–19, July 1998.
- J2. Vassilis Makrakis, Symeon Retalis, Anastasios Koutoumanos, Nikos Papaspyrou and Manolis Skordalakis, “Evaluating the Effectiveness of an ODL Hypermedia System and Courseware at the National Technical University of Athens: A Case Study”, *Journal of Universal Computer Science*, vol. 4, no. 3, pp. 259–272, March 1998.
- J1. Nikolaos S. Papaspyrou, “A Framework for Programming Denotational Semantics in C++”, *ACM SIGPLAN Notices*, vol. 31, no. 8, pp. 16–25, August 1996.

## PUBLICATIONS IN COLLECTIONS

- C9. Zhong Shao, Valery Trifonov, Bratin Saha and Nikolaos Papaspyrou, “A Type System for Certified Binaries”, in Jaynarayan H. Lala, editor, *Foundations of Intrusion Tolerant Systems*, pp. 60–85, ISBN: 0-7695-2057-X, IEEE Computer Society Press, Los Alamitos, CA, 2003.

- C8. Symeon Retalis, Paris Avgeriou and Nikolaos Papaspyrou, “Design of Networked Educational Software”, in A. Liontarakis, editor, *Opinions and Thoughts on Open and Distance Learning*, pp. 153–187, ISBN: 960-7860-20-9, Propompos, 2001.
- C7. Ioannis Drositis, Nectarios Koziris, Nikolaos Papaspyrou and Panayotis Tsanakas, “A Systolic Approach to Loop Partitioning and Mapping into Fixed Size Distributed Memory Architectures”, in D. I. Fotiadis and S. D. Nikolopoulos, editors, *Advances in Informatics*, pp. 83–96, ISBN: 981-02-4192-5, World Scientific, Singapore, 2000.
- C6. Nikolaos S. Papaspyrou and Vassilios C. Vescoukis, “Facilitating the Definition of Programming Languages by Using Parametric Context-Free Grammars”, in D. I. Fotiadis and S. D. Nikolopoulos, editors, *Advances in Informatics*, pp. 260–272, ISBN: 981-02-4192-5, World Scientific, Singapore, 2000.
- C5. Nikolaos S. Papaspyrou, “A Case Study in Specifying the Denotational Semantics of C”, in S. G. Tzafestas, editor, *Advances in Intelligent Systems: Concepts, Tools and Applications*, pp. 63–74, ISBN: 0-7923-5966-6, Kluwer Academic Publishers, Dordrecht, November 1999.
- C4. Nikolaos S. Papaspyrou, Cleo E. Sgouropoulou, Alexandros V. Gerbessiotis, Panos Livadas and Emmanuel Skordalakis, “A Multi-Agent Model for Content-Based Electronic Document Filtering”, in S. G. Tzafestas, editor, *Advances in Intelligent Systems: Concepts, Tools and Applications*, pp. 75–86, ISBN: 0-7923-5966-6, Kluwer Academic Publishers, Dordrecht, November 1999.
- C3. Nikolaos S. Papaspyrou, “A Methodology for the Definition of Programming Languages”, in N. Mastorakis, editor, *Software and Hardware Engineering for the 21st Century*, pp. 67–78, ISBN: 960-8052-06-8, World Scientific and Engineering Society Press, July 1999.
- C2. Nikolaos S. Papaspyrou, “Denotational Semantics of Evaluation Order in Expressions with Side Effects”, in N. Mastorakis, editor, *Recent Advances in Information Science and Technology*, pp. 87–94, ISBN: 981-02-3657-3, World Scientific, Singapore, 1998.
- C1. Sofoklis Efreimidis, Symeon Retalis, Nikolaos Papaspyrou and Emmanuel Skordalakis, “Teaching Software Engineering through the Net”, in C. Tasso, R. A. Adey and M. Pighin, editors, *Software Quality Engineering*, pp. 3–13, ISBN: 1-85312-403-6, Computational Mechanics Publications, 1997.

## **PUBLICATIONS IN CONFERENCE PROCEEDINGS**

- P50. Aggelos Giantsios, Nikolaos Papaspyrou and Konstantinos Sagonas, “Concolic Testing for Functional Languages”, in *Proceedings of the 17th International Symposium on Principles and Practice of Declarative Programming (PPDP’15)*, pp. 137–148, ISBN: 978-1-4503-3516-4, ACM, July 8–11, 2015.
- P49. Angelos Charalambidis, Nikolaos Papaspyrou and Panos Rondogiannis, “Tagged Dataflow: a Formal Model for Iterative Map-Reduce”, in *Proceedings of the Workshop on Algorithms for MapReduce and Beyond*, pp. 29–36, Athens, Greece, March 28, 2014.
- P48. Nikolaos S. Papaspyrou and Stathis Zachos, “Teaching Programming through Problem Solving: The Role of the Programming Language”, in Maria Ganzha, Leszek A. Maciaszek and Marcin Paprzycki, editors, *Proceedings of the 4th Workshop on Advances in Programming Languages (WAPL 2013), Federated Conference on Computer Science and Information Systems (FedCSIS 2013)*, pp. 1533–1536, ISBN: 978-1-4673-4471-5, Kraków, Poland, September 8–11, 2013.
- P47. Yannis Rouselakis, Nikolaos S. Papaspyrou, Yiannis Tsiouris and Eneia Todoran, “Compilation to Quantum Circuits for a Language with Quantum Data and Control”, in Maria Ganzha, Leszek A.

- Maciaszek and Marcin Paprzycki, editors, *Proceedings of the 4th Workshop on Advances in Programming Languages (WAPL 2013), Federated Conference on Computer Science and Information Systems (FedCSIS 2013)*, pp. 1537–1544, ISBN: 978-1-4673-4471-5, Kraków, Poland, September 8–11, 2013.
- P46. Emmanouil Koukoutos and Nikolaos Papaspyrou, “Type Inference for a Higher-Order Extension of Prolog”, in *Proceedings of the 9th Panhellenic Logic Symposium*, pp. 75–80, Athens, Greece, July 15–18, 2013.
- P45. Georgios Fourtounis and Nikolaos Papaspyrou, “Supporting Separate Compilation in a Defunctionalizing Compiler”, in José Paulo Leal, Ricardo Rocha and Alberto Simões, editors, *Proceedings of the 2nd Symposium on Languages, Applications and Technologies (SLATE '13)*, vol. 29, pp. 39–49, ISBN: 978-3-939897-52-1, Porto, Portugal, June 20–21, 2013, Schloss Dagstuhl, Leibniz-Zentrum für Informatik.
- P44. Georgios Fourtounis, Nikolaos Papaspyrou and Panos Rondogiannis, “The Generalized Intensional Transformation for Implementing Lazy Functional Languages”, in *Proceedings of the 15th International Symposium on Practical Aspects of Declarative Languages (PADL '13)*, vol. 7752 of *Lecture Notes in Computer Science*, pp. 157–172, ISBN: 978-3-642-45283-3, Rome, Italy, January 21–22, 2013, Springer.
- P43. Ioannis Voyiatzis, Kyriakos Axiotis, Nikolaos Papaspyrou, Hera Antonopoulou and Constantinos Efstathiou, “Test Set Embedding into Low-power BIST Sequences using Maximum Bipartite Matching”, in *Proceedings of the 16th Panhellenic Conference on Informatics*, pp. 74–79, Piraeus, Greece, October 5–7, 2012, IEEE Computer Society.
- P42. Stavros Aronis, Nikolaos Papaspyrou, Katerina Roukounaki, Konstantinos Sagonas, Yiannis Tsiouris and Ioannis E. Venetis, “A Scalability Benchmark Suite for Erlang/OTP”, in Torben Hoffman and John Hughes, editors, *Proceedings of the 11th ACM SIGPLAN Erlang Workshop*, pp. 33–42, Copenhagen, Denmark, September 14, 2012, ACM.
- P41. Nikolaos Papaspyrou and Konstantinos Sagonas, “On Preserving Term Sharing in the Erlang Virtual Machine”, in Torben Hoffman and John Hughes, editors, *Proceedings of the 11th ACM SIGPLAN Erlang Workshop*, pp. 11–20, Copenhagen, Denmark, September 14, 2012, ACM.
- P40. Olivier Boudeville, Francesco Cesarini, Natalia Chechina, Kenneth Lundin, Nikolaos Papaspyrou, Konstantinos Sagonas, Simon Thompson, Phil Trinder and Ulf Wiger, “RELEASE: A High-level Paradigm for Reliable Large-scale Server Software”, in *Post-Proceedings of the Symposium on Trends in Functional Programming (TFP 2012)*, St. Andrews, Scotland, June 12–14, 2012. To appear. An earlier version of this paper was included in the symposium’s draft proceedings.
- P39. Prodromos Gerakios, Nikolaos Papaspyrou, Konstantinos Sagonas and Panagiotis Vekris, “Dynamic Deadlock Avoidance in Systems Code Using Statically Inferred Effects”, in *Proceedings of the 6th Workshop on Programming Languages and Operating Systems (PLOS '11)*, pp. 5:1–5, ISBN: 978-1-4503-0979-0, Cascais, Portugal, October 23, 2011, ACM.
- P38. Georgios Fourtounis, Peter Csaba Ölveczky and Nikolaos Papaspyrou, “Formally Specifying and Analyzing a Parallel Virtual Machine for Lazy Functional Languages using Maude”, in *Proceedings of the 5th ACM SIGPLAN International Workshop on High-Level Parallel Programming and Applications (HLPP)*, pp. 19–26, ISBN: 978-1-4503-0862-5, Tokyo, Japan, September 18, 2011.
- P37. Georgios Korfiatis, Michalis A. Papakyriakou and Nikolaos Papaspyrou, “A Type and Effect System for Implementing Functional Arrays with Destructive Updates”, in Maria Ganzha, Leszek A.

- Maciaszek and Marcin Paprzycki, editors, *Proceedings of the 3rd Workshop on Advances in Programming Languages (WAPL 2011), Federated Conference on Computer Science and Information Systems (FedCSIS 2011)*, pp. 879–886, ISBN: 978-83-60810-34-4, Szczecin, Poland, September 18-21, 2011.
- P36. Niki Vazou, Michalis Papakyriakou and Nikolaos Papaspyrou, “Memory Safety and Race Freedom in Concurrent Programming Languages with Linear Capabilities”, in Maria Ganzha, Leszek A. Maciaszek and Marcin Paprzycki, editors, *Proceedings of the 3rd Workshop on Advances in Programming Languages (WAPL 2011), Federated Conference on Computer Science and Information Systems (FedCSIS 2011)*, pp. 833–840, ISBN: 978-83-60810-34-4, Szczecin, Poland, September 18-21, 2011.
- P35. Georgios Fourtounis, Nikolaos Papaspyrou and Panos Rondogiannis, “The Intensional Transformation for Functional Languages with User-Defined Data Types”, in *Proceedings of the 8th Panhellenic Logic Symposium*, pp. 38–42, Ioannina, Greece, July 4-8, 2011.
- P34. Prodromos Gerakios, Nikolaos Papaspyrou and Konstantinos Sagonas, “A Type and Effect System for Deadlock Avoidance in Low-level Languages”, in *Proceedings of the 6th ACM SIGPLAN Workshop on Types in Language Design and Implementation (TLDI 2011)*, pp. 15–28, ISBN: 978-1-4503-0484-9, Austin, TX, USA, January 25, 2011.
- P33. Prodromos Gerakios, Nikolaos Papaspyrou and Konstantinos Sagonas, “A Type System for Unstructured Locking that Guarantees Deadlock Freedom without Imposing a Lock Ordering”, in Kohei Honda and Alan Mycroft, editors, *Proceedings of the 3rd International Workshop on Programming Language Approaches to Concurrency and Communication-cEntric Software (PLACES 2010)*, vol. 69 of *Electronic Proceedings in Theoretical Computer Science*, pp. 44–58, Paphos, Cyprus, March 21, 2010. A shorter version of the paper appeared in the workshop’s preproceedings.
- P32. Prodromos Gerakios, Nikolaos Papaspyrou and Konstantinos Sagonas, “Race-free and Memory-safe Multithreading: Design and Implementation in Cyclone”, in *Proceedings of the 5th ACM SIGPLAN Workshop on Types in Language Design and Implementation (TLDI 2010)*, pp. 15–26, ISBN: 978-1-60558-891-9, Madrid, Spain, January 23, 2010.
- P31. Prodromos Gerakios, Nikolaos Papaspyrou and Konstantinos Sagonas, “A Concurrent Language with a Uniform Treatment of Regions and Locks”, in Alastair R. Beresford and Simon Gay, editors, *Proceedings of the 2nd International Workshop on Programming Language Approaches to Concurrency and Communication-cEntric Software (PLACES 2009)*, vol. 17 of *Electronic Proceedings in Theoretical Computer Science*, pp. 79–93, York, England, March 22, 2009. A shorter version of the paper appeared in the workshop’s preproceedings.
- P30. Angelos Manousaridis, Michalis Papakyriakou and Nikolaos S. Papaspyrou, “From Program Verification to Certified Binaries”, in Arnold Beckmann, Costas Dimitracopoulos and Benedikt Löwe, editors, *Proceedings of the 4th Conference on Computability in Europe*, pp. 324–331, June 2008.
- P29. Michalis A. Papakyriakou and Nikolaos S. Papaspyrou, “Mechanized Proofs of Type Safety for a Family of Lambda Calculi with References”, in *2nd Informal ACM SIGPLAN Workshop on Mechanizing Metatheory*, Freiburg, Germany, October 4, 2007.
- P28. Michalis A. Papakyriakou, Prodromos E. Gerakios and Nikolaos S. Papaspyrou, “A Mechanized Proof of Type Safety for the Polymorphic Lambda Calculus with References”, in *Proceedings of the 6th Panhellenic Logic Symposium*, Volos, Greece, July 5-8, 2007.
- P27. Konstantinos Pouliasis and Nikolaos S. Papaspyrou, “Axiomatizing Principia Metaphysica in Isabelle/HOL”, in *Proceedings of the 6th Panhellenic Logic Symposium*, Volos, Greece, July 5-8, 2007.

- P26. Michael Lampis, Kyriakos G. Ginis and Nikolaos S. Papaspyrou, “Quantum Data and Control Made Easier”, in Peter Selinger, editor, *Preliminary Proceedings of the 4th International Workshop on Quantum Programming Languages*, pp. 73–86, Oxford, UK, July 17-19, 2006.
- P25. Angelos Charalambidis, Athanasios Grivas, Nikolaos Papaspyrou and Panos Rondogiannis, “Efficient Intensional Implementation for Lazy Functional Languages”, in *Proceedings of the 17th International Workshop on the Implementation and Application of Functional Languages (IFL '05)*, Dublin, Ireland, September 19-21, 2005.
- P24. Nikolaos S. Papaspyrou, Michalis A. Papakyriakou and Angelos Manousaridis, “Encoding Hoare Logic in Typed Certified Code”, in *Proceedings of the 5th Panhellenic Logic Symposium*, pp. 134–141, Athens, Greece, July 25-28, 2005.
- P23. Enea Todoran, Nikolaos Papaspyrou and Kalman Puztai, “Denotational Prototype Semantics for a Simple CSP-Like Language”, in *Proceedings of the 8th IEEE International Conference on Intelligent Engineering Systems (INES 2004)*, pp. 319–325, Cluj-Napoca, Romania, September 19-21, 2004.
- P22. Nikolaos S. Papaspyrou, Dimitrios Ch. Vytiniotis and Vassilios M. Koutavas, “Logic-Enhanced Type Systems: Programming Language Support for Reasoning about Security and Other Program Properties”, in *Proceedings of the 4th Panhellenic Logic Symposium*, pp. 141–145, ISBN: 960-431-859-4, Thessaloniki, Greece, July 7-10, 2003, Ziti Publishing.
- P21. Nikolaos S. Papaspyrou, Stergios Stergiou, Georgios Manis and George Papakonstantinou, “A Meta-interface for Programming Embedded Applications in a Tailor-Made Operating System”, in *Proceedings of the 4th International Workshop on Computer Science and Information Technologies (CSIT 2002)*, Patras, Greece, September 18-20, 2002.
- P20. Zhong Shao, Bratin Saha, Valery Trifonov and Nikolaos Papaspyrou, “A Type System for Certified Binaries”, in *Proceedings of the 29th ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL '02)*, pp. 217–232, ISBN: 1-58113-450-9, Portland, OR, January 16-18, 2002. Also published in *ACM SIGPLAN Notices*, vol. 37, no. 1, January 2002.
- P19. Nikolaos S. Papaspyrou, “Formal Specification of the User Interface by Using Parametric Context-Free Grammars”, in N. Avouris and N. Fakotakis, editors, *Advances in Human-Computer Interaction I, Proceedings of the Panhellenic Conference with International Participation on Human-Computer Interaction (PC-HCI 2001)*, pp. 71–76, ISBN: 960-7620-18-6, Patras, Greece, December 7-9, 2001, Typorama.
- P18. Nikolaos S. Papaspyrou, Ioannis P. Panagopoulos, Stergios Stergiou and George Papakonstantinou, “Developing Embedded Applications for a Component-Based Operating System”, in *Proceedings of the 4th Multiconference, Information Society (IS 2001), Development and Reengineering of Information Systems*, pp. 383–387, Ljubljana, Slovenia, October 22-26, 2001.
- P17. Nikolaos S. Papaspyrou, “A Resumption Monad Transformer and its Applications in the Semantics of Concurrency”, in *Proceedings of the 3rd Panhellenic Logic Symposium*, Anogia, Greece, July 17-22, 2001.
- P16. Christos Koutsikas, Dimitrios Staikos, Konstantinos Bitsakos, Nikolaos Papaspyrou and Nikolaos Malevris, “Testing a Communications Driver for the IEEE 1394 High Speed Serial Bus Standard”, in *Proceedings of the 1st International Conference on Practical Software Testing Techniques (PSTT 2000)*, pp. 1–12, Minneapolis, MN, USA, September 20, 2000.
- P15. Enea Todoran and Nikolaos S. Papaspyrou, “Continuations for Parallel Logic Programming”, in *Proceedings of the 2nd ACM SIGPLAN International Conference on Principles and Practice of*



*Declarative Programming (PPDP '00)*, pp. 257–267, ISBN: 1-58113-265-4, Montréal, Canada, September 20-23, 2000.

- P14. Paris Avgeriou, Anastasios Koutoumanos, Symeon Retalis and Nikolaos Papaspyrou, “Learning Object Metadata in a Web-Based Learning Environment”, in *Proceedings of Technology in Teaching and Learning in Higher Education: An International Conference*, pp. 241–246, Samos, Greece, August 25-27, 2000.
- P13. Symeon Retalis, Paris Avgeriou and Nikolaos Papaspyrou, “Design of Networked Educational Software: The Method CADMOS-D and the Tool CRITON”, in *Proceedings of the Conference on Open and Distance Learning and Regional Development*, ISBN: 960-8583-0-6, Igoumenitsa, December 13-14, 1999.
- P12. Nikolaos S. Papaspyrou and Vassilios C. Vescoukis, “Facilitating the Definition of Programming Languages by Using Parametric Context-Free Grammars”, in *Proceedings of the 7th Hellenic Conference on Informatics*, vol. II, pp. 91–98, Ioannina, Greece, August 1999.
- P11. Nikolaos S. Papaspyrou, Aris N. Tsois and Emmanuel S. Skordalakis, “An Object-Oriented Simulation Program Generator”, in *Proceedings of the International Workshop on Discrete Event Systems (WoDES '98)*, pp. 42–47, Cagliari, Italy, August 26-28, 1998.
- P10. Anastasios Koutoumanos, Nikolaos Papaspyrou, Symeon Retalis, Cleo Sgouropoulou, Ioannis Sgourovassilakis and Emmanuel Skordalakis, “Distance Learning Applications in Banking: The D-LAB project”, in *Proceedings of the 2nd European Conference in Higher Education Information Systems (EUNIS '97)*, Grenoble, France, September 9-11, 1997.
- P9. Nikolaos Papaspyrou, Symeon Retalis, Anastasios Koutoumanos, Emmanuel Giakoumakis and Emmanuel Skordalakis, “A Model for Multimedia Courseware Cost Estimation”, in *Proceedings of the 3rd Panhellenic Conference with International Participation on the Didactics of Mathematics and Informatics in Education*, pp. 417–436, Patra, Greece, 1997.
- P8. Nikolaos S. Papaspyrou, “A Static Semantics for the Type System of C: A Formal Mathematical Description”, in *Proceedings of the 6th Panhellenic Conference in Computer Science*, pp. 691–700, Athens, Greece, 1997.
- P7. Nikolaos S. Papaspyrou, Cleo E. Sgouropoulou, Dimitrios N. Petroglou, Alexandros V. Gerbessiotis, Panos Livadas and Emmanuel S. Skordalakis, “A Model for Content-Based Electronic Document Filtering Using Intelligent Agents”, in *Proceedings of the 6th Panhellenic Conference in Computer Science*, pp. 679–688, Athens, Greece, 1997.
- P6. Anastasios Koutoumanos, Nikolaos Papaspyrou, Simeon Retalis, Hermann Maurer and Emmanuel Skordalakis, “Towards a Novel Networked Learning Environment”, in *Proceedings of the World Conference of the Web Society (WebNet 96)*, pp. 267–272, San Francisco, CA, October 15-19, 1996.
- P5. Nikolaos Papaspyrou, Anastasios Koutoumanos, Hermann Maurer and Emmanuel Skordalakis, “An Ongoing Experiment in ODL Using New Technologies”, in *Proceedings of the World Conference of the Web Society (WebNet 96)*, pp. 390–395, San Francisco, CA, October 15-19, 1996.
- P4. Nikolaos Papaspyrou and Aris Tsois, “ARGUS: An Object Oriented Simulation Program Generator”, in *Proceedings of the Conference on Advanced Information Systems Engineering (CAiSE\*96) Doctoral Consortium*, pp. 42–45, Heraklion, Greece, 1996.
- P3. Vassilios C. Vescoukis, Nikolaos Papaspyrou and Emmanuel Skordalakis, “A Logic-Based Framework for Reasoning Support in Software Evolution”, in *Proceedings of the Conference on Advanced Information Systems Engineering (CAiSE\*96)*, vol. 1080 of *Lecture Notes in Computer Science*, pp. 44–59, ISBN: 3-540-61292-0, Heraklion, Greece, 1996.

- P2. Anastasios Koutoumanos, Nikolaos Papaspyrou and Emmanuel Skordalakis, “The Experimental Distance Learning System SL-DLS”, in *Proceedings of the Distance Learning Conference*, Athens, Greece, 1995, Institute of Education.
- P1. Anastasios Koutoumanos, Nikolaos Papaspyrou, Andreas Syrigos and Emmanuel Skordalakis, “Towards a Novel Approach for the Completion and Submission of the Tax Form”, in *Proceedings of the 5th Panhellenic Conference in Computer Science*, pp. 403–409, Athens, Greece, 1995.

## CITATIONS

Until the June of 2015, there were 491 citations to my papers, according to Google Scholar (Publish or Perish), and 255 citations, according to Microsoft Academic Search.

## STUDENTS

- Michalis Papakyriakou
- Angelos Manousaridis
- Georgios Korfiatis
- Katerina Roukounaki, 2011–
- Nikolaos Vathis, 2012–
- Aggelos Giantsios, 2013–
- Panagiotis Theofilopoulos, 2014–

### Former PhD students

- Dr. Prodromos Gerakios, PhD 2012, co-supervised with Kostis Sagonas
- Dr. George Fourtounis, PhD 2014

### Former diploma students and collaborators

- Dimitris Konomis, Carnegie Mellon University
- Nick Giannarakis, ENS Cachan, INRIA Paris-Rocquencourt
- Zoe Paraskevopoulou, ENS Cachan, INRIA Paris-Rocquencourt
- Vrettos Moulos, UC Berkeley
- George Karachalias, KU Leuven
- Manos Koukoutos, EPFL
- Panagiotis Vekris, UC San Diego
- Niki Vazou, UC San Diego
- Konstantinos Pouliasis, City University of New York
- Dr. Vasilis Papavasileiou, Northeastern University
- Dr. Spyros Hadjichristodoulou, Stony Brook University
- Dr. Dimitrios Vekris, Université Paris-Est
- Dr. Yannis Rouselakis, University of Texas at Austin
- Dr. Christos Stergiou, UC Berkeley
- Dr. Christos Dimoulas, Northeastern University
- Dr. Antonis Stampoulis, Yale University
- Dr. Michael Lampis, City University of New York
- Dr. Dimitris Vardoulakis, Northeastern University
- Dr. Vasileios Koutavas, Northeastern University
- Dr. Dimitrios Vytiniotis, University of Pennsylvania

This list is non-exhaustive. Until June 2015, I have supervised 40 diploma projects.

## REVIEWER IN JOURNALS

- Computer Science and Information Systems.
- Computer Languages.
- Informatica.
- Information and Software Technology.
- International Journal of Computer Research.
- International Journal of Cooperative Information Systems
- IT Professional.
- Journal of Educational Technology and Society.
- Journal of Intelligent and Robotic Systems.
- Mathematics in Computer Science.

## PROGRAM AND ORGANIZATION COMMITTEES FOR CONFERENCES

- ACM Symposium On Applied Computing, Technical Track on Programming Languages, 2012, 2013, 2014, 2015, 2016. Program committee.
- 19th Panhellenic Conference on Informatics, 2015. Program committee.
- 7th Balkan Conference in Informatics, 2015. Programming committee.
- 10th Panhellenic Logic Symposium, 2015. Program committee, organizing committee.
- 9th Panhellenic Logic Symposium, 2013. Program committee, organizing committee (chair).
- 5th Panhellenic Logic Symposium, 2005. Organizing committee.
- Workshop on Global Computing Models and Technologies, 2008. Program committee.
- Balkan Conference in Informatics (BCI), 2012, 2013. Program committee.
- Workshop on Advances in Programming Languages (WAPL), 2011, 2013, 2015. Program committee.
- Symposium on Computer Languages, Implementations and Tools (SCLIT), 2011, 2012, 2013, 2014, 2015. Program committee.

## OTHER ACTIVITIES

- I am one of the founders of *Simple New Ideas*, an IT startup company located in Athens, Greece.  
» <http://www.simple-new-ideas.com/>
- I am also consulting for *Programize*, a software development house with broad development capabilities and niche areas of expertise.  
» <http://www.programize.com/>

## VOLUNTARY WORK

Since 2006, I volunteer as a coach, problem setter and evaluator of students who participate in the Greek National Contest of Informatics. I am currently responsible for hosting the automated tutoring and grading system, “Hellenico”, in our laboratory. Every year since 2006, I have organized the preparation camp, for the contest’s finalists, out of which the national teams are selected. I have also served as leader and deputy leader in many delegations of our national teams to the:

- *International Olympiad in Informatics*:  
Croatia, 2007; Egypt, 2008; Bulgaria, 2009; Canada, 2010; Thailand, 2011; Italy, 2012; Taiwan, 2014; Kazakhstan, 2015.
- *Balkan Olympiad in Informatics*:  
Bulgaria, 2009; Montenegro, 2010.
- *Junior Balkan Olympiad in Informatics*:  
Bulgaria, 2009; Bulgaria, 2013.