# Michail G. Lagoudakis

*Curriculum Vitæ*


Associate Professor
Intelligent Systems Laboratory
School of Electronic and Computer Engineering
Technical University of Crete
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## Positions

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| May 2013 – present | *Associate Professor*<br>(on parental leave during the academic year 2014–2015)<br>School of Electronic and Computer Engineering<br>Technical University of Crete, Chania, Greece |
| Sep 2005 – Apr 2013 | *Assistant Professor*<br>Department of Electronic and Computer Engineering<br>Technical University of Crete, Chania, Greece |
| Sep 2003 – Jun 2005 | *Postdoctoral Research Fellow*<br>School of Industrial and Systems Engineering and College of Computing<br>Georgia Institute of Technology, Atlanta, GA, USA |
| Aug 1998 – Aug 2003 | *Teaching and Research Assistant*<br>Department of Computer Science, Duke University, Durham, NC, USA |
| Aug 1996 – Jul 1998 | *Teaching and Research Assistant*<br>Center for Advanced Computer Studies, University of Louisiana, Lafayette, LA, USA |
| Jan 1996 – May 1996 | *Database Administrator* (during military service)<br>Artillery Training Camp, Thiva, Greece |

## Research Interests and Expertise

- *Machine Learning* (Reinforcement Learning, Supervised Learning, Approximation Methods)
- *Decision Making* (Markov Decision Processes, Stochastic Processes, Optimal Control)
- *Multi–Agent Systems* (Markov Games, Multi–Agent Learning/Collaboration/Competition)
- *Robotics* (Probabilistic Methods, Motion Control, Active Perception, Spatial Cognition)
- *Meta–Computation* (Adaptive Algorithms, Algorithm Selection, Learning and Optimization)
- *Complex Systems* (Non–Linear Dynamics, Self–Organization, DNA Computation)

## Education

May 2003 *Ph.D., Computer Science*
*Graduate Certificate in Computational Science, Engineering, and Medicine*
Department of Computer Science, Duke University, Durham, NC, U.S.A.

Dissertation: Efficient Approximate Policy Iteration Methods for Sequential Decision Making in Reinforcement Learning
(*2003 Departmental Outstanding Ph.D. Dissertation Award*)
Advisor: Ronald Parr
Committee: Xiaobai Sun, Michael L. Littman (Rutgers), Leslie P. Kaelbling (MIT)

May 1998 *M.Sc., Computer Science*
Center For Advanced Computer Studies, University of Louisiana, Lafayette, LA, U.S.A.

Thesis: Mobile Robot Local Navigation with a Polar Neural Map
Advisor: Anthony S. Maida
Committee: Kimon P. Valavanis, Bill Z. Manaris

June 1995 *Diploma (5-year B.Sc. degree), Computer Engineering and Informatics*
Department of Computer Engineering and Informatics, University of Patras, Patras, Greece

Thesis: Implementation of a Knowledge–Based Scheduler for Job–Shop Production Environments
Advisor: Paul Spirakis
Committee: Ioannis Hatzilygeroudis, Dimitrios Sofotasios

## Honors and Awards

2014 *Kouretes video-featured* on the Academic and Scientific Excellence Node, Ministry of Education

2013 *Best Paper Award* for article co-authored with M.Sc. student N. Kofinas, ROBOTICA 2013

2012 *Best Student Paper Award* for article co-authored with Ph.D. student I. Rexakis, ICTAI 2012

2011 *2nd place for Noxious-Kouretes*, Standard Platform League Open Challenge, RoboCup 2011

2008 *3rd place for Kouretes*, Standard Platform League (Nao robots), RoboCup 2008

2006 *Marie Curie International Reintegration Grant*, European Commission

2003 *Outstanding Ph.D. Dissertation Award*, Department of Computer Science, Duke University

2003 *William J. Griffith University Service Award*, Duke University

2000 / 2001 *Outstanding Teaching Assistant Award*, Department of Computer Science, Duke University

1999 *Best Presentation Award* (in session), IEEE Intl Joint Conference on Neural Networks

1998 – 1999 *Graduate Fellowship*, Department of Computer Science, Duke University

1998 *First Prize Award Team*, AAAI–98 Robot Building Lab

1997 / 1998 *Student Honor*, University of Louisiana, Lafayette

1996 – 2002 *Graduate Fellowship*, Lilian Boudouri Foundation, Greece

1992 / 1994 *Student Scholarship*, National Scholarship Foundation, Greece

# Publications

All papers are available at www.lagoudakis.gr

## Book Chapters

1. **Michail G. Lagoudakis**, "Value Function Approximation," in Claude Sammut and Geoffrey I. Webb (Eds.), *Encyclopedia of Machine Learning*, Springer, 2010, pp. 1011–1021.
2. **Michail G. Lagoudakis**, "Least-Squares Reinforcement Learning Methods," in Claude Sammut and Geoffrey I. Webb (Eds.), *Encyclopedia of Machine Learning*, Springer, 2010, pp. 595–600.
3. **Michail G. Lagoudakis** and Sven Koenig, "Planning," in the *Berkshire Encyclopedia of Human Computer Interaction*, Berkshire Publishing Book, 2004, pp. 554–560.

## Refereed Journal Articles

1. Ioannis Rexakis and **Michail G. Lagoudakis**, "Directed Policy Search for Decision Making using Relevance Vector Machines," *Journal of Artificial Intelligence Tools (JAIT)*, **23** (4), 2014, pp. 1–21.
2. Nikolaos Kofinas, Emmanouil Orfanoudakis, **Michail G. Lagoudakis**, "Complete Analytical Forward and Inverse Kinematics for the NAO Humanoid Robot", *Journal of Intelligent and Robotic Systems (JINT)*, 2014, pp. 1–14.
3. Vasileios Vasilikos and **Michail G. Lagoudakis**, "Optimization of Heuristic Search using Recursive Algorithm Selection and Reinforcement Learning," *Annals of Mathematics and Artificial Intelligence*, **60** (1–2), 2010, pp. 119–151.
4. Diomidis Katzourakis, Yannis Papaefstathiou, and **Michail G. Lagoudakis**, "Open-Source Scaled Automobile Platform for Fault-Tolerant Electronic Stability Control," *IEEE Transactions on Instrumentation and Measurement*, **59** (9), 2010, pp. 2303–2314.
5. Ali Ekici, Özlem Ergun, Pınar Keskinoçak, and **Michail G. Lagoudakis**, "Optimal Job Splitting on a Multi-Slot Machine with Applications in the Printing Industry," *Naval Research Logistics*, **57** (3), 2010, pp. 237–251.
6. Christos Dimitrakakis and **Michail G. Lagoudakis**, "Rollout Sampling Approximate Policy Iteration," *Machine Learning*, **72** (3), 2008, pp. 157–171.
7. Adrienne Chu, Hongshik Ahn, Bhawna Halwan, Bruce Kalmin, Everson L.A. Artifon, Alan Barkun, **Michail G. Lagoudakis**, and Atul Kumar, "A Decision Support System to Facilitate Management of Patients with Acute Gastrointestinal Bleeding," *Artificial Intelligence in Medicine*, **42**, 2008, pp. 247–259.
8. **Michail G. Lagoudakis** and Ronald Parr, "Least–Squares Policy Iteration," *Journal of Machine Learning Research (JMLR)*, **4**, 2003, pp. 1107–1149.
9. Bill Z. Manaris, Valanne MacGyvers, and **Michail G. Lagoudakis**, "A Listening Keyboard for Users with Motor Impairments—A Usability Study," *International Journal of Speech Technology*, **5**, 2002, pp. 371–388.

## Refereed Conference Articles

1. Eric Chown and **Michail G. Lagoudakis**, "The Standard Platform League," *Proceedings of the 18th RoboCup International Symposium*, João Pessoa, Brazil, July 2014; in *RoboCup 2014: Robot Soccer World Cup XVIII*, Lecture Notes in Computer Science Volume 8992, Springer, 2015, pp. 636–648.

2. Stylianos Piperakis, Emmanouil Orfanoudakis, **Michail G. Lagoudakis**, "Predictive Control for Dynamic Locomotion of Real Humanoid Robots", *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Chicago, USA, September 2014.

3. Georgios Papadimitriou, Nikolaos I. Spanoudakis, **Michail G. Lagoudakis**, "Extending the Kouretes Statechart Editor for Generic Agent Behavior Development", *Proceedings of the 10th International Conference on Artificial Intelligence Applications and Innovations (AIAI)*, Rhodes, Greece, September 2014; in *IFIP Advances in Information and Communication Technology*, Volume 436, 2014, pp. 182–192.

4. Nikolaos Kofinas, Emmanouil Orfanoudakis, **Michail G. Lagoudakis**, "Complete Analytical Inverse Kinematics for NAO", *Proceedings of the 13th International Conference on Autonomous Robot Systems and Competitions (ROBOTICA)*, Lisbon, Portugal, April 2013, pp. 1–6. [**Best Paper Award**]

5. Ioannis Skoulakis and **Michail G. Lagoudakis**, "Efficient Reinforcement Learning in Adversarial Games," *Proceedings of the 2012 IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*, Athens, Greece, November 2012, pp. 704–711.

6. Ioannis Rexakis and **Michail G. Lagoudakis**, "Directed Policy Search using Relevance Vector Machines," *Proceedings of the 2012 IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*, Athens, Greece, November 2012, pp. 25–32. [**Best Student Paper Award**]

7. Angeliki Topalidou-Kyniazopoulou, Nikolaos Spanoudakis, and **Michail G. Lagoudakis**, "A CASE Tool for Robot Behavior Development," *Proceedings of the 16th RoboCup International Symposium (RCS)*, Mexico City, Mexico, June 2012; in *RoboCup 2012: Robot Soccer World Cup XVI*, Lecture Notes in Computer Science Volume 7500, Springer, 2013, pp. 225–236.

8. Alexandros Paraschos, Nikolaos Spanoudakis, and **Michail G. Lagoudakis**, "Model-Driven Behavior Specification for Robotic Teams," *Proceedings of the 11th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, Valencia, Spain, June 2012, pp. 171–178.

9. Jason Pazis and **Michail G. Lagoudakis**, "Reinforcement Learning in Multidimensional Continuous Action Spaces," *Proceedings of the 2011 IEEE International Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL)*, Paris, France, April 2011, pp. 97–104.

10. Ioannis Rexakis and **Michail G. Lagoudakis**, "Directed Exploration of Policy Space using Support Vector Classifiers," *Proceedings of the 2011 IEEE International Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL)*, Paris, France, April 2011, pp. 112–119.

11. Maria Rovatsou and **Michail G. Lagoudakis**, "Minimax Search and Reinforcement Learning for Adversarial Tetris," *Proceedings of the 6th Hellenic Conference on Artificial Intelligence (SETN)*, Athens, Greece, May 2010, pp. 417–422.

12. Stavros Korokithakis and **Michail G. Lagoudakis**, "Heuristic Rule Induction for Decision Making in Near-Deterministic Domains," *Proceedings of the 6th Hellenic Conference on Artificial Intelligence (SETN)*, Athens, Greece, May 2010, pp. 339–344.

13. Emmanuel Rachelson and **Michail G. Lagoudakis**, "On the Locality of Action Domination in Sequential Decision Making," *Proceedings of the 11th International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, Ft. Lauderdale, FL, USA, January 2010.

14. Jason Pazis and **Michail G. Lagoudakis**, "Binary Action Search for Learning Continuous-Action Control Policies," *Proceedings of the 26th International Conference on Machine Learning (ICML)*, Montreal, Quebec, Canada, June 2009, pp. 793–800.

15. Georgios Pierris and **Michail G. Lagoudakis**, "An Interactive Tool for Designing Complex Robot Motion Patterns," *Proceedings of the 2009 IEEE International Conference on Robotics and Automation (ICRA)*, Kobe, Japan, May 2009, pp. 4013–4018.

16. Jason Pazis and **Michail G. Lagoudakis**, "Learning Continuous-Action Control Policies," *Proceedings of the 2009 IEEE International Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL)*, Nashville, TN, USA, March 2009, pp. 169–176.

17. Diomidis Katzourakis, Ioannis Papaefstathiou, and **Michail G. Lagoudakis**, "Semi-Autonomous Robotic Platform for Automobile Experiments" (in Greek), *Proceedings of the 1st Hellenic Robotics Conference (HEROC)*, Athens, Greece, February 2009.

18. Ioannis Rexakis and **Michail G. Lagoudakis**, "Classifier-Based Policy Representation," *Proceedings of the 2008 IEEE International Conference on Machine Learning and Applications (ICMLA)*, San Diego, CA, USA, December 2008, pp. 91–98.

19. Alejandro Mosteo, Luis Montano, and **Michail G. Lagoudakis**, "Guaranteed-Performance Multi-Robot Routing under Limited Communication Range," *Proceedings of the 9th International Symposium on Distributed Autonomous Robotic Systems (DARS)*, Tsukuba, Ibaraki, Japan, November 2008, pp. 491–502.

20. Suzanna Volioti and **Michail G. Lagoudakis**, "Histogram-Based Visual Object Recognition for the 2007 Four-Legged RoboCup League," *Proceedings of the 5th Hellenic Conference on Artificial Intelligence (SETN)*, Syros, Greece, October 2008, pp. 313–326.

21. Christos Dimitrakakis and **Michail G. Lagoudakis**, "Algorithms and Bounds for Rollout Sampling Approximate Policy Iteration," *Proceedings of the 8th European Workshop on Reinforcement Learning (EWRL)*, Lille, France, June 2008, pp. 27–40.

22. Eleni Mylona, Zoi Dailiana, Xavier Trepat, and **Michail G. Lagoudakis**, "Substrate Rigidity Dictates Phenotype, Survival, and Mechanics of Primary Human Osteosarcoma Cells," *Proceedings of the 6th European Symposium on Biomedical Engineering (ESBME)*, Chania, Greece, June 2008.

23. Alejandro Mosteo, Luis Montano, and **Michail G. Lagoudakis**, "Multi-Robot Routing under Limited Communication Range," *Proceedings of the 2008 IEEE International Conference on Robotics and Automation (ICRA)*, San Francisco, May 2008, pp. 1531–1536.

24. Konstantinos Karakasiliotis, Leonidas Kagkarakis, and **Michail G. Lagoudakis**, "Chlorochlamys Loop-like Locomotion: Combining Crawling and Climbing Robotics," *Proceedings of the 2007 IEEE International Conference on Robotics and Biomimetics (RoBio)*, Sanya, China, December 2007, pp. 978–983.

25. Georgios Kontes and **Michail G. Lagoudakis**, "Coordinated Team Play in the RoboCup Four-Legged League," *Proceedings of the 19th IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*, Patras, Greece, October 2007, pp. 109–116.

26. **Michail G. Lagoudakis**, "Incremental Multi-Objective Motion Control of Nonholonomic Mobile Robots," *Proceedings of the 2006 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Beijing, China, October 2006, pp. 2804–2809.

27. Sven Koenig, Craig Tovey, **Michail G. Lagoudakis**, Vangelis Markakis, David Kempee, Pinar Keskinocak, Anton Kleywegt, Adam Meyerson, and Sonal Jain, "The Power of Sequential Single-Item Auctions for Agent Coordination," *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI)*, Boston, MA, July 2006, pp. 1625–1629.

28. **Michail G. Lagoudakis**, "On Improving Mobile Robot Motion Control," *Proceedings of the 4th Hellenic Conference on Artificial Intelligence (SETN)*, Heraklion, Greece, May 2006, pp. 551–554.

29. **Michail G. Lagoudakis**, Vangelis Markakis, David Kempee, Pinar Keskinocak, Sven Koenig, Craig Tovey, Anton Kleywegt, Adam Meyerson, and Sonal Jain, "Auction-Based Multi-Robot Routing," *Proceedings of Robotics: Science and Systems (RSS)*, MIT, Boston, MA, June 2005, pp. 343–350.

30. Craig Tovey, **Michail G. Lagoudakis**, Sonal Jain, and Sven Koenig, "Generation of Bidding Rules for Auction-Based Robot Coordination," *Proceedings of the 3rd International Multi-Robot Systems Workshop*, Washington, DC, March 2005, pp. 3–14.

31. **Michail G. Lagoudakis**, Marc Berhault, Pinar Keskinocak, Sven Koenig, and Anton Kleywegt, "Auctions with Performance Guarantees for Multi-Robot Task Allocation," *Proceedings of the 2004 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Sendai, Japan, September 2004, pp. 698–705.

32. **Michail G. Lagoudakis** and Ronald Parr, "Reinforcement Learning as Classification: Leveraging Modern Classifiers," *Proceedings of the 20th International Conference on Machine Learning (ICML)*, Washington, DC, U.S.A., August 2003, pp. 424–431.

33. **Michail G. Lagoudakis** and Ronald Parr, "Approximate Policy Iteration using Large-Margin Classifiers," *Proceedings of the 18th International Joint Conference on Artificial Intelligence (IJCAI)*, Acapulco, Mexico, August 2003, pp. 1432–1434.

34. **Michail G. Lagoudakis** and Ronald Parr, "Learning in Zero–Sum Team Markov Games using Factored Value Functions," *Proceedings of NIPS*2002: Neural Information Processing Systems*, Vancouver, BC, Canada, December 2002, pp. 1659–1666.

35. **Michail G. Lagoudakis** and Ronald Parr, "Value Function Approximation in Zero–Sum Markov Games," *Proceedings of the 18th Conference on Uncertainty in Artificial Intelligence (UAI)*, Edmonton, AB, Canada, August 2002, pp. 283–292.

36. Carlos Guestrin, **Michail G. Lagoudakis**, and Ronald Parr, "Coordinated Reinforcement Learning," *Proceedings of the 19th International Conference on Machine Learning (ICML)*, Sydney, Australia, July 2002, pp. 227–234.

37. **Michail G. Lagoudakis**, Ronald Parr, and Michael L. Littman, "Least–Squares Methods in Reinforcement Learning for Control," *Lecture Notes on Artificial Intelligence*, Vol. 2308, *Proceedings of the 2nd Hellenic Conference on Artificial Intelligence (SETN)*, Thessaloniki, Greece, April 2002, pp. 249–260.

38. **Michail G. Lagoudakis** and Ronald Parr, "Model–Free Least–Squares Policy Iteration," *Proceedings of NIPS*2001: Neural Information Processing Systems*, Vancouver, BC, Canada, December 2001, pp. 1547–1554.

39. **Michail G. Lagoudakis** and Michael L. Littman, "Learning to Select Branching Rules in the DPLL Procedure for Satisfiability," *Electronic Notes in Discrete Mathematics (ENDM)*, Vol. 9, *LICS 2001 Workshop on Theory and Applications of Satisfiability Testing (SAT)*, Boston, MA, USA, June 2001, pp. 344–359.

40. **Michail G. Lagoudakis** and Michael L. Littman, "Algorithm Selection using Reinforcement Learning," *Proceedings of the 17th International Conference on Machine Learning (ICML)*, Stanford, CA, USA, June 2000, pp. 511–518.

41. **Michail G. Lagoudakis** and Thomas H. LaBean, "2D DNA Self–Assembly for Satisfiability," *DIMACS Series in Discrete Mathematics and Theoretical Computer Science*, Vol. 54, *Proceedings of the 5th DIMACS Workshop on DNA Based Computers*, MIT, Boston, MA, USA, June 1999, pp. 141–154.

42. **Michail G. Lagoudakis** and Anthony S. Maida, "Neural Maps for Mobile Robot Navigation," *Proceedings of the 1999 IEEE International Joint Conference on Neural Networks (IJCNN)*, Washington, DC, USA, July 1999, pp. 2011–2016.

43. Bill Z. Manaris, Vallane MacGyvers, and **Michail G. Lagoudakis**, "Universal Access to Mobile Computing Devices through Speech Input," *Proceedings of the 12th International Florida Artificial Intelligence Research Symposium (FLAIRS)*, Orlando, FL, USA, May 1999, pp. 286–292.

44. **Michail G. Lagoudakis**, "An IDA* Algorithm for Optimal Spare Allocation," *Proceedings of 1999 ACM Symposium on Applied Computing (SAC)*, San Antonio, TX, USA, February 1999, pp. 486–488.

## Refereed Conference Abstracts

1. Zoi Dailiana, Eleni Mylona, Xavier Trepat, **Michail G. Lagoudakis**, and Maria Ioannou, "Primary Human Osteosarcoma Cell Responses to Alterations in Substrate Rigidity", *Proceedings of the 55th Annual Meeting of the Orthopaedic Research Society (ORS)*, Las Vegas, NV, USA, February 2009.

2. Christos Dimitrakakis and **Michail G. Lagoudakis**, "Rollout Sampling Approximate Policy Iteration", *Proceedings of the 2008 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD)*, Antwerp, Belgium, September 2008, pp. 7.

3. Atul Kumar, **Michail G. Lagoudakis**, Bruce Kalmin, and Bhawna Halwan, "Predicting Need for Urgent Endoscopy in Patients with Acute Gastrointestinal Bleeding," *Proceedings of the ASGE Ninth Annual Young Investigators Conference in Digestive Diseases*, Huntington Beach, CA, April 2004.

4. **Michail G. Lagoudakis** and Michael L. Littman, "Reinforcement Learning for Algorithm Selection" (Student Abstract), *Proceedings of the 17th National Conference on Artificial Intelligence (AAAI)*, Austin, TX, USA, July 2000, pp. 1081.

5. **Michail G. Lagoudakis** and Anthony S. Maida, "Robot Navigation with a Polar Neural Map" (Student Abstract), *Proceedings of the 16th National Conference on Artificial Intelligence (AAAI)*, Orlando, FL, USA, July 1999, pp. 965.

6. **Michail G. Lagoudakis** and Anthony S. Maida, "A Polar Neural Map for Mobile Robot Local Navigation" (Extended Abstract), *Proceedings of the 1999 International Conference on Cognitive and Neural Systems (ICCNS)*, Boston, MA, USA, May 1999.

## Other Published Articles

1. Eric Chown and **Michail G. Lagoudakis**, "The Standard Platform League," *e-Proceedings of the 18th RoboCup International Symposium*, João Pessoa, Brazil, July 2014.

2. **Michail G. Lagoudakis** et al., "Kouretes 2013 SPL Team Description Paper," *e-Proceedings of the 17th RoboCup International Symposium*, Eidehoven, The Netherlands, June 2013.

3. **Michail G. Lagoudakis** et al., "Kouretes 2012 SPL Team Description Paper," *e-Proceedings of the 16th RoboCup International Symposium*, Mexico City, Mexico, June 2012.

4. **Michail G. Lagoudakis** et al., "Noxious-Kouretes 2011 SPL Team Description Paper," *e-Proceedings of the 15th RoboCup International Symposium*, Istanbul, Turkey, July 2011.

5. **Michail G. Lagoudakis** et al., "Kouretes 2010 SPL Team Description Paper," *e-Proceedings of the 14th RoboCup International Symposium*, Singapore, June 2010.

6. **Michail G. Lagoudakis** et al., "Kouretes 2009 SPL Team Description Paper," *e-Proceedings of the 13th RoboCup International Symposium*, Graz, Austria, June 2009.

7. **Michail G. Lagoudakis** et al., "Kouretes+AUEBo 2008: Aibo SPL Team Description Paper," *e-Proceedings of the 12th RoboCup International Symposium*, Suzhou, China, July 2008.

8. **Michail G. Lagoudakis** et al., "Kouretes 2008: Nao SPL Team Description Paper," *e-Proceedings of the 12th RoboCup International Symposium*, Suzhou, China, July 2008.

9. **Michail G. Lagoudakis** et al., "Reports on the Twenty-First National Conference on Artificial Intelligence (AAAI-06) Workshop Program: Auction Mechanisms for Robot Coordination", *AI Magazine*, AAAI, Vol. 27, 4, 2006, pp. 92–102.

10. Carlos Guestrin, **Michail G. Lagoudakis**, and Ronald Parr, "Coordinated Reinforcement Learning," *Proceedings of the 2002 AAAI Spring Symposium Series: Collaborative Learning Agents*, Stanford, CA, USA, March 2002.

11. **Michail G. Lagoudakis**, Michael L. Littman, and Ronald Parr, "Selecting the Right Algorithm," *Proceedings of the 2001 AAAI Fall Symposium Series: Using Uncertainty within Computation*, Cape Cod, MA, USA, November 2001.

12. **Michail G. Lagoudakis**, "Book Review: Artificial Intelligence and Scientific Method," *Journal of Intelligent and Robotic Systems*, **22**, 1998, pp. 87–95.

## Technical Reports

1. "Kouretes 2008: Nao Team Report" (with members of team Kouretes), TUC, 2008.

2. "Petri-Net Plan Coordination for RoboCup Teams" (with Georgios Kontes), TUC, 2008.

3. "Optimizing Job Splitting on Multi-Slot Machines" (with Pinar Keskinocak), GaTech, 2005.

4. "Randomization in Markov Decision Processes and Reinforcement Learning," Duke, 2001.

5. "Using Markov Decision Processes and Reinforcement Learning to solve the 'Remote vs. Local' Execution Problem" (with Tammy Bailey and Nicoleta Popoviciu), Duke, 2000.

6. Lecture Notes: "External Partition Element Finding" (with Lars Arge), Duke, 1999.

7. Lecture Notes: "Red–Black Trees" (with Lars Arge), Duke, 1999.

8. "Balancing and Control of a Freely–Swinging Pendulum using a Model–Free Reinforcement Learning Algorithm," Duke, 1999.

9. "Reinforcement Learning in Robot Control," Duke, 1999.

10. "N–SAT: A Numerical Approach to Satisfiability," Duke, 1999.

11. "Nonlinear Dynamics of Video Feedback" (with Timothy H. Burt), Duke, 1999.

12. "Rule Induction for Identification of Microcalcifications in Mammograms," Duke, 1999.

13. "Sierpiński Pyramid," Duke, 1999.

14. "Linear Planning in the Cognitive Map," Duke, 1998.

15. "Experimental Comparison of the Speech Understanding and the Hand–Stick Methods as Computer Input Modalities for Motor–Challenged Users" (with Bill Manaris and Valanne MacGyvers), ULL, 1998.

16. "Spatial Knowledge in Humans, Animals and Robots," ULL, 1998.

17. "Near Optimal Solutions for the Minimum Cost Spare Allocation Problem using Hopfield–Type Neural Network Optimizers" (with Anthony S. Maida), ULL, 1998.

18. "Probabilistic Models in Planning," ULL, 1997.

19. "Planning and Intelligent Systems: An Introductory Overview," ULL, 1996.

20. "The $0-1$ Knapsack Problem: A Survey," ULL, 1996.

## Research Funding

Dec 2012 – Jun 2015 *ATLANTAS: Development of a Prototype Real 3-D Forming Touch Table for Interactive 3-D Geographical Information System*
Principal Investigator for TUC: Panagiotis Partsinevelos (School of Min. Res. Eng.)
Synergasia 2011, ESPA 2007–2013
General Secretariat for Research and Technology, Hellenic Ministry of Education
Contract: 11SYN_6_1937, Budget: 247,900€ (for TUC)

Apr 2011 – Apr 2015 *NOPTILUS: autonomous, self-learning, optimal, and complete underwater systems*
Principal Investigators for TSI/TUC: Nikos Sidiropoulos and Michail G. Lagoudakis
Integrated Project, Information and Communication Technologies (ICT)
Seventh Framework Programme (FP7), European Commission
Contract: INFSO-ICT-270180, Budget: 524,300€ (for TSI/TUC)

Jan 2010 – Dec 2012 *Kouretes: TUC RoboCup Team*
Sponsoring Program, Molto-Chipita S.A.
Contracts: 80128, 80484, Budget: 37.000€

Jan 2009 – Jan 2011 *CALR: Coordinated Action and Learning in RoboCup*
Basic Research Grants, Research Office (ELKE), Technical University of Crete
Contract: TUC-242, Budget: 12,000€

Jan 2007 – Jan 2008 *AuctionCoord: Experimental Evaluation of Auction-Based Robot Coordination*
Basic Research Grants, Research Office (ELKE), Technical University of Crete
Contract: TUC-226, Budget: 5,000€

Dec 2006 – Dec 2008 *RLvSL: Reinforcement Learning via Supervised Learning*
Marie Curie International Reintegration Grant
Marie Curie Actions, Sixth Framework Programme, European Commission
Contract: MIRG-CT-2006-044980, Budget: 80,000€

## Teaching Experience

| | |
|---|---|
| Fall 2015 | Machine Learning (grad), Technical University of Crete |
| Fall 2015 | Autonomous Agents (ugrad), Technical University of Crete |
| Spring 2014 | Theory of Computation (ugrad), Technical University of Crete |
| Spring 2014 | Artificial Intelligence (ugrad), Technical University of Crete |
| Fall 2013 | Machine Learning (grad), Technical University of Crete |
| Spring 2013 | Theory of Computation (ugrad), Technical University of Crete |
| Fall 2012 | Probabilistic Robotics (grad), Technical University of Crete |
| Fall 2012 | Autonomous Agents (ugrad), Technical University of Crete |
| Spring 2012 | Theory of Computation (ugrad), Technical University of Crete |
| Spring 2012 | Artificial Intelligence (ugrad), Technical University of Crete |
| Fall 2011 | Autonomous Agents (ugrad), Technical University of Crete |
| Spring 2011 | Machine Learning (grad), Technical University of Crete<br>(co-taught with Vasilis Digalakis) |

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|---|---|
| Spring 2011 | Theory of Computation (ugrad), Technical University of Crete |
| Fall 2010 | Autonomous Agents (grad), Technical University of Crete |
| Fall 2010 | Autonomous Agents (ugrad), Technical University of Crete |
| Spring 2010 | Artificial Intelligence (ugrad), Technical University of Crete |
| Spring 2010 | Theory of Computation (ugrad), Technical University of Crete |
| Fall 2009 | Autonomous Agents (grad), Technical University of Crete |
| Fall 2009 | Autonomous Agents (ugrad), Technical University of Crete |
| Spring 2009 | Artificial Intelligence (ugrad), Technical University of Crete |
| Spring 2009 | Theory of Computation (ugrad), Technical University of Crete |
| Fall 2008 | Autonomous Agents (grad), Technical University of Crete |
| Fall 2008 | Autonomous Agents (ugrad), Technical University of Crete |
| Spring 2008 | Autonomous Agents: Computational Perception (grad), Technical University of Crete (co-taught with Euripides Petrakis) |
| Spring 2008 | Autonomous Agents (ugrad), Technical University of Crete |
| Fall 2007 | Artificial Intelligence (ugrad), Technical University of Crete |
| Fall 2007 | Theory of Computation (ugrad), Technical University of Crete |
| Spring 2007 | Capita Selecta on Algorithms and Complexity (grad), Technical University of Crete (co-taught with Vasileios Samoladas) |
| Spring 2007 | Autonomous Agents (ugrad/grad), Technical University of Crete |
| Fall 2006 | Artificial Intelligence (ugrad), Technical University of Crete |
| Fall 2006 | Theory of Computation (ugrad), Technical University of Crete |
| July 2006 | One-Day Tutorial on "Auction-Based Agent Coordination" 21st Conference on Artificial Intelligence (AAAI) 2006, Boston, MA, USA |
| March 2006 | Robot Programming: Creating Intelligent Machines (week-long intensive course/lab) Spring course, Board of European Students of Technology (BEST), TUC Chapter |
| Spring 2006 | Autonomous Agents (ugrad/grad), Technical University of Crete |
| Spring 2006 | Artificial Intelligence (ugrad), Technical University of Crete |
| Fall 2005 | Theory of Computation (ugrad), Technical University of Crete |
| 1997 – 2001 | *Teaching Assistant and Lab Instructor* Lectured; held review/lab sessions, office hours; graded assignments; designed course syllabus; prepared/supervised exams; received the outstanding teaching assistant award twice. |

# Advising

## Postdoctoral Fellows (TUC ECE)

1. **Emmanuel Rachelson**, Jan 2009 – Dec 2009
   *Efficient Rollout Methods for Reinforcement Learning*

## Ph.D. Students (TUC ECE)

1. **Ioannis Rexakis**
   *Classifier-Based Reinforcement Learning: Representations and Algorithms*

## M.Sc. Students (TUC ECE)

1. **Emmanouil Orfanoudakis**
   *Event Recognition in Underwater Robot Team Missions*
2. **Ioannis Skoulakis**
   *Efficient Reinforcement Learning in Alternating Games*
3. **Eleftherios Chatzilaris**
   *Coordinated Action and Learning in RoboCup*
4. **Stylianos Piperakis**, defended on July 31, 2014
   *Predictive Control for Stable Dynamic Locomotion of Real Humanoid Robots*
5. **Nikolaos Kofinas**, defended on July 18, 2014
   *Grammatical Inference for Event Recognition*
6. **Jason Pazis**, defended on March 22, 2012
   *Reinforcement Learning in Multi-Dimensional Continuous Action Spaces*

## Diploma Students (TUC ECE)

1. **Ioannis Liverios-Marinos**, defended on October 9, 2014
   *Visual Color and Field Line Recognition and Exploitation for the RoboCup Standard Platform League*
2. **Dimitrios Trigkakis**, defended on October 9, 2014
   *Design and Implementation of an Autonomous Agent for the "League of Legends" Game*
3. **Stylianos Tsigdinos**, defended on August 28, 2014
   *Systematic Search and Reinforcement Learning for the Board Game Backgammon*
4. **Georgios Papadimitriou**, defended on August 7, 2014
   *Extending Kouretes Statechart Editor for Executing Statechart-Based Robotic Behavior Models*
5. **Nikolaos Makropoulos**, defended on November 4, 2013
   *Hardware and Software Design for a Maze-Solving Robot*
6. **Evangelos Michelioudakis**, defended on September 30, 2013
   *Dynamic Multi-Robot Coordination for the RoboCup Standard Platform League*
7. **Nikolaos Kargas**, defended on September 30, 2013
   *Robust Localization for the RoboCup Standard Platform League*
8. **Georgios Koukoumpedakis**, defended on July 18, 2013
   *Development of an Educational Graphical Tool for Finite State Machine Simulation*
9. **Nikolaos Pavlakis**, defended on June 11, 2013
   *Cooperative Global Game State Estimation for the RoboCup Standard Platform League*
10. **Aggelos Aggelidakis**, defended on February 27, 2013
    *Learning Strategies for Network Fault Detection and Remediation*
11. **Vasilis Papadimitriou**, defended on February 7, 2013
    *Error-Correcting Encoding for Self-Assembly with DNA Tiles*

12. **Georgios Georgakis**, defended on October 24, 2012
*Field Landmark Recognition and Localization for the RobotStadium Online Soccer Competition*

13. **Maria Karamitrou**, defended on September 18, 2012
*KMonitor: Global and Local State Visualization and Monitoring for the Robocup SPL League*

14. **Georgios Methenitis**, defended on August 24, 2012
*Player Behavior and Team Strategy for the RoboCup 3D Simulation League*

15. **Nikos Kofinas**, defended on July 26, 2012
*Forward and Inverse Kinematics for the NAO Humanoid Robot*

16. **Iris Kyranou**, defended on April 3, 2012
*Path Planning for NAO Robots using an Egocentric Polar Occupancy Map*

17. **Astero-Dimitra Tzanetatou**, defended on March 23, 2012
*Interleaving of Motion Skills for Humanoid Robots*

18. **Aggeliki Topalidou-Kyniazopoulou**, defended on March 23, 2012
*A CASE (Computer-Aided Software Engineering) Tool for Robot-Team Behavior-Control Development*

19. **Emmanouil Orfanoudakis**, defended on December 2, 2011
*Reliable Object Recognition for the RoboCup Domain*

20. **Emmanuel-Theofanis Chourdakis**, defended on July 26, 2011
*Computer-Aided Music Composition using Inductive Logic Programming*

21. **Dimitrios Katsaitis**, defended on January 26, 2011
*Camera Motion and Depth Estimation from Image Sequences*

22. **Alexandros Paraschos**, defended on December 6, 2010
*Monas: A Flexible Software Architecture for Robotic Agents*

23. **Evangelos Vazaios**, defended on February 24, 2010
*Narukom: A Distributed, Cross-Platform, Transparent Communication Framework for Robotic Teams*

24. **Ioannis Skoulakis**, defended on February 24, 2010
*Systematic Search and Reinforcement Learning for the Board Game "Neighbours"*

25. **Vlasios K. Dimitriadis**, defended on December 1, 2009
*Reinforcement Learning in Real Time Strategy Games: Case Study on the Free Software Game Glest*

26. **Nikolaos Papoulias**, defended on October 12, 2009
*High-Level Debugging: Facilities and Interfaces – Design and Development of a Debug-Oriented IDE*

27. **Eleftherios Chatzilaris**, defended on October 6, 2009
*Visual-Feature-based Self-Localization for Robotic Soccer*

28. **Andreas Panakos**, defended on October 6, 2009
*Efficient Color Recognition under Varying Illumination Conditions for Robotic Soccer*

29. **Ioannis Marakis**, defended on October 6, 2009
*Conversion, Unification, and Visualization of Meta-Information for Gene Regulatory Networks*

30. **Maria Rovatsou**, defended on September 25, 2009
*Minimax Search and Reinforcement Learning for Adversarial Tetris*

31. **Stavros Korokithakis**, defended on July 23, 2009
*Heuristic Rule Induction for Decision Making in Deterministic Domains*

32. **Vasileios Vasilikos**, defended on July 23, 2009
*Optimization of Heuristic Search using Recursive Algorithm Selection and Reinforcement Learning*

33. **Konstantinos Haldezos**, graduated in July 15, 2009
*Interactive Robotic Gaming*

34. **Eleftherios Tsallas**, graduated in May 27, 2009
*GeoSage: Geographical Information and Mapping for RSS Feeds in the Sage Extension for Firefox*

35. **Georgios Pierris**, defended on April 9, 2009
*Soccer Skills for Humanoid Robots*

36. **Emmanuel Vardakis**, defended on March 4, 2009
*Path Planning and Motion Control for Robotic Automobile*

37. **Jason Pazis**, defended on October 13, 2008
*Learning Continuous-Action Control Policies*

38. **Ioannis Vasileiou**, defended on October 10, 2008
*Development of a Calorimeter Application for Mobile Phones*

39. **Suzanna Volioti**, defended on May 6, 2008
*Histogram-Based Visual Object Recognition for the 2007 Four-Legged Robocup League*

40. **Konstantinos Makantasis**, defended on February 11, 2008
*Human Face Recognition and Active Tracking with the Four-Legged Aibo Robots*

41. **Georgios Kontes**, defended on October 23, 2007
*Coordinated Team Play in the RoboCup Four-Legged League*

42. **Vasileios Skourtis**, defended on October 23, 2007
*Implementation of a Distributed Software Framework for Auction-Based Multi-Agent Coordination*

43. **Konstantinos Kapourakis**, defended on June 7, 2007
*Pac-Man: Parametric Implementation of the Game and Design of Autonomous Agent-Player*

## Ph.D. Committees

1. **Georgios Kontes**
School of Production Engineering and Management, Technical University of Crete, Greece
*Model-Assisted Control For Energy Efficiency In Buildings*

2. **Georgios Limnaios**
School of Production Engineering and Management, Technical University of Crete, Greece
*Design of Robust and Intelligent Control and Navigation Algorithms for Unmanned Aerial Vehicles*

3. **Anestis Fachantidis**
Department of Informatics, Aristotle University of Thessaloniki, Greece
*Knowledge Transfer in Reinforcement Learning*

4. **Georgios A. Koulieris**, defended on September 9, 2015
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*Context-aware Gaze Prediction applied to Game Level Design, Level-of-Detail and Stereo Manipulation*

5. **Nikolaos V. Tzortziotis**, defended on March 5, 2015
Computer Science and Engineering Department, University of Ioannina, Greece
*Machine Learning for Intelligent Agents*

6. **Bilal Hashem Kalil Abed-Alguni**, defended on July 5, 2014
School of Electrical Engineering and Computer Science, University of Newcastle, NSW, Australia
*Cooperative Reinforcement Learning for Independent Learners*

7. **Majd Hawasly**, defended on May 2, 2014
Institute of Perception, Action and Behaviour, School of Informatics, University of Edinburgh, U.K.
*Policy Space Abstraction for a Lifelong Learning Agent*

8. **Savas Piperidis**, defended on April 9, 2014
School of Production Engineering and Management, Technical University of Crete, Greece
*Autonomous Underwater Robots' Cooperative Behaviour*

9. **Elias Iosif**, defended on April 4, 2013
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Network-Based Distributional Semantic Models*

10. **Alejandro Mosteo**, defended on November 26, 2010
Department of Computer Science and Systems Engineering, University of Zaragoza, Spain
Visiting student at the Technical University of Crete, April 2007 – July 2007
*Multi-Robot Task Allocation in Service Robotics: From Unlimited to Limited Communication Range*

11. **Paraskevi Raftopoulou**, defended on December 11, 2009
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Rewiring Peer Connections over Semantic Overlay Networks*

12. **Emmanuel Rachelson**, defended on March 23, 2009
University of Toulouse and Institut Supérieur de l'Aéronautique et de l'Espace, France
*Temporal Markov Decision Problems: Formalization and Resolution*

13. **Chrisa Tsinaraki**, defended on July 30, 2008
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*A Semantic-Based Framework for Multimedia Management and Interoperability*

## M.Sc. Committees

1. **Marios Antonakakis**, defended on September 7, 2015
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*Non-linear Synchronization Methods on Magnetoencephalographic (MEG) Recordings*

2. **Stamatis Andrianakis**, defended on January 14, 2015
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*Data Integration Approaches for Supporting Retrieval of Medical Information in the Web*

3. **Emmanouil Alimpertis**, defended on August 5, 2014
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*Smart Sensors of RF and Backscatter Signals with Localization*

4. **Ioakeim Perros**, defended on July 2, 2014
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*Stochastic Pagerank Maintenance over Shared-Nothing Architectures*

5. **Konstantinos Babas**, defended on June 3, 2014
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*A Bayesian Personalized Recommendation System*

6. **Konstantinos E. Makris**, defended on May 8, 2014
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*The SPARQL-RW Framework: Mapping Modeling and Query Rewriting for Ontology-Based Mediators*

7. **Alexandros Georgogiannis**, defended on April 8, 2014
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*Regularized Optimization Applied to Clustering and Estimation of Multiple Undirected Graphical Models*

8. **Charilaos Akasiadis**, defended on December 11, 2013
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*A Novel Electricity Demand Management Scheme via Multiagent Cooperatives in the Smart Grid*

9. **Evangelos E. Vazaios**, defended on October 18, 2013
School of Electronic and Computer Engineering, Technical University of Crete, Greece
*BePadoop: Large Scale Exact Belief Propagation on Hadoop*

10. **Konstantinos Stravoskoufos**, defended on April 23, 2013
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*SOWL QL : Querying Spatio-Temporal Ontologies In OWL 2.0*

11. **Ioannis Christodoulou**, defended in February 2012
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*An Interactive 3D Lighting System for fMRI Rendering Fidelity Experiments*

12. **Xenia Arapi**, defended in January 2011
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Framework and Architecture for Supporting eLearning Applications in Multimedia Digital Libraries*

13. **Pavlos Andreadis**, defended in September 2010
Department of Production Engineering and Management, Technical University of Crete, Greece
*Optimization of MDP Controllers using Maximum Likelihood Trajectories*

14. **Alexandros Zotos**, defended in December 2009
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*A Real-Time Selective Rendering Algorithm based on Spatial Cognition*

15. **Pavlos Papadopoulos**, defended in December 2009
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Identification of Linear Systems in Canonical Form with the Expectation Maximization Algorithm*

16. **Georgios Kontes**, defended in July 2009
Department of Production Engineering and Management, Technical University of Crete, Greece
*Study and Implementation of Controllers for Robotic Systems using Reinforcement Learning Algorithms*

17. **Ioannis Botsis**, defended in June 2009
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*A Model for Vehicle Loading on Ferry Boats*

18. **Diomidis Katzourakis**, defended in September 2008
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Scaled Testbed for Automotive Experiments: Evaluation of Electronic Stability Control Schemes*

19. **Ioannis Klasinas**, defended in April 2008
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Statistical Machine Translation Incorporating Morphological Knowledge*

20. **Rena Peraki**, defended in March 2008
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Requirements Analysis for Medical Information Systems Design*

21. **Anastasia Karanastasi**, defended in August 2007
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*OntoNL: A Generator of Natural Language Interfaces to Knowledge Bases*

22. **Panagiotis Polydoros**, defended in July 2007
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Design and Implementation of a Graphical Management System for OWL Ontologies*

23. **Salahaldin Juba**, defended in October 2006
Department of Environmental Management, Mediterranean Agronomic Institute of Chania, Greece
*Open Source Web Mapping Portal with Spatial Analysis System*

24. **Nikolaos Hourdakis**, defended in October 2006
Department of Electronic and Computer Engineering, Technical University of Crete, Greece
*Design and Evaluation of Clustering Approaches for Large Document Collections: Bic-Means Approach*

## Invited Talks

| | |
|---|---|
| 2014, May 2 | *Reinforcement Learning as Classification: Exploiting Structure for Directed Policy Search*<br>Research Talk, School of Informatics, University of Edinburgh, U.K. |
| 2013, Jul 26 | *RoboCup: Building a Competitive Robotic Soccer Team*<br>Research Talk, 1st Multiagent Systems Summer School(CretaMASSS/HAISS-Agents), Greece |
| 2013, Apr 13 | *Robotics: Research, Innovation, Career*<br>Keynote Talk, Panorama of Entrepreneurship and Career Development, Greece |
| 2013, Mar 23 | *RoboCup: A Challenge Problem for Robotics*<br>Keynote Talk, Annual Convention of the Hellenic Mathematics Society, Greece |
| 2012, Apr 07 | *RoboCup: A Challenge Problem for Artificial Intelligence*<br>Keynote Talk, 5th Conference of ECE Students (SFHMMY 5), Greece |
| 2011, Mar 24 | *RoboCup: A Challenge Problem for Artificial Intelligence*<br>Department of Computer Science, University of Ioannina, Greece |
| 2010, Nov 26 | *RoboCup: A Challenge Problem for Artificial Intelligence*<br>Centro Politécnico Superior, University of Zaragoza, Spain |
| 2010, Jul 13 | *RoboCup: A Challenge Problem for Artificial Intelligence*<br>National Center of Scientific Research Demokritos Summer School, Greece |
| 2010, May 05 | *RoboCup: A Challenge Problem for Artificial Intelligence*<br>Keynote Talk, 6th Hellenic Conference on Artificial Intelligence, Greece |
| 2009, Apr 21 | *An Interactive Tool for Designing Complex Robot Motion Patterns*<br>Forum on Mobile Robots and Intelligent Systems, Hannover Messe, Germany |
| 2009, Mar 23 | *Learning Continuous-Action Control Policies*<br>ONERA, The French Aerospace Lab, France |
| 2004, Apr 02 | *Efficient Approximate Methods for Learning Sequential Decision Making*<br>Palo Alto Research Center, USA |
| 2003, Oct 14 | *Efficient Approximate Methods for Sequential Decision Making in Reinforcement Learning*<br>School of Computer Science, Carnegie Mellon University, USA |
| 2003, Sep 11 | *Reinforcement Learning as Classification: Leveraging Modern Classifiers*<br>Workshop on Machine Learning Reductions, Toyota Technological Institute, USA |
| 2003, Jul 23 | *Efficient Approximate Methods for Sequential Decision Making in Reinforcement Learning*<br>Institute of Computer Science, Foundation of Research and Technology-Hellas, Greece |

2003, Jul 18 *Efficient Approximate Methods for Sequential Decision Making in Reinforcement Learning*
Department of ECE, Technical University of Crete, Greece

2002, Dec 20 *Linear Architectures and Least-Squares Methods in Reinforcement Learning for Control*
Institute of Informatics, National Center for Scientific Research "Demokritos," Greece

2001, Nov 30 *Model-Free Least-Squares Policy Iteration*
Scientific Computing Seminar, Department of Computer Science, Duke University, USA

2001, Apr 03 *"Do the Right Thing": Algorithm Selection using Reinforcement Learning*
First Annual Graduate Student Research Day, Duke University, USA

2001, Apr 06 *Learning to Select Branching Rules in the DPLL Procedure for Satisfiability*
Algorithms Seminar, Department of Computer Science, Duke University, USA

1999, Dec 10 *Divide Or Conquer?*
Algorithms Seminar, Department of Computer Science, Duke University, USA

## Professional Memberships

- Association for the Advancement of Artificial Intelligence (AAAI)
- Institute of Electrical and Electronics Engineers (IEEE)
- Hellenic Society for Artificial Intelligence (EETN)

## Service

- **To the Profession**

2014 *Program Committee*, 28th AAAI Conference on Artificial Intelligence (AAAI 2014)

2014 *Program Committee*, 8th Workshop on Wireless Sensor, Actuator and Robot Networks

2014 *Program Committee*, 14th Intl Conf on Autonomous Robot Systems and Competitions

2013 *Program Committee*, 17th International RoboCup Symposium

2013 *Program Committee*, AAMAS Workshop on Multi-Agent Sequential Decision Making

2013 *Program Committee*, 6th European Conference on Mobile Robots (ECMR 2013)

2012 *Associate Editor*, IEEE Intl Conf on Intelligent Robots and Systems (IROS 2012)

2012 *Program Committee*, 29th International Conference on Machine Learning (ICML 2012)

2012 *Proposal Reviewer*, German-Israeli Foundation for Scientific Research & Development

2012 *Program Committee*, 10th European Workshop on Reinforcement Learning (EWRL'12)

2012 *Program Committee*, 16th International RoboCup Symposium

2012 *Program Committee*, AAMAS Workshop on Multi-Agent Sequential Decision Making

2012 *Program Committee*, 11th Intl Conf on Autonomous Agents and Multiagent Systems

2012 *Program Committee*, Intl Conf on Pattern Recognition Applications and Methods

2011 *Proposal Reviewer*, Swiss National Science Foundation (FNSF)

| | |
|---|---|
| 2011 | *Program Committee*, 28th International Conference on Machine Learning (ICML 2011) |
| 2011 | *Program Committee*, 25th AAAI Conference on Artificial Intelligence (AAAI 2011) |
| 2011 | *Program Committee*, 15th International RoboCup Symposium |
| 2011 | *Senior Program Committee*, 22nd Intl Joint Conf on Artificial Intelligence (IJCAI) |
| 2011 | *Program Committee*, 10th Intl Conf on Autonomous Agents and Multiagent Systems |
| 2011 | *Program Committee*, 3rd International Conference on Agents and Artificial Intelligence |
| 2010 | *Program Committee*, 14th International RoboCup Symposium |
| 2010 | *Program Committee*, 6th Hellenic Conference on Artificial Intelligence (SETN 2010) |
| 2010 | *Program Committee*, 27th International Conference on Machine Learning (ICML 2010) |
| 2010 | *Program Committee*, 24th AAAI Conference on Artificial Intelligence (AAAI 2010) |
| 2010 | *Program Committee*, AAMAS Workshop on Multi-agent Sequential Decision Making |
| 2009 – 2014 | *Standard Platform League Executive Committee*, RoboCup Federation |
| 2009 – present | *Editorial Board*, Journal of Intelligent Learning Systems and Applications (JILSA) |
| 2009 | *Program co-Chair*, 13th International RoboCup Symposium |
| 2009 | *Program Committee*, Conference on Learning and Intelligent Optimization 2009 (LION) |
| 2009 | *Program Committee*, 19th Intl Conference on Automated Planning and Scheduling |
| 2009 | *Program Committee*, 26th International Conference on Machine Learning (ICML 2009) |
| 2009 | *Program Committee*, 25th Conference on Uncertainty in Artificial Intelligence (UAI2009) |
| 2009 | *Program Committee*, 12th Intl Conference on Artificial Intelligence and Statistics |
| 2008 – present | *Technical Committee on Robot Learning*, IEEE Robotics and Automation Society |
| 2008 | *Program Committee*, Conference on Learning and Intelligent Optimization 2008 (LION) |
| 2008 | *Program Committee*, 5th Hellenic Conference on Artificial Intelligence (SETN 2008) |
| 2008 | *Program Committee*, 23rd AAAI Conference on Artificial Intelligence (AAAI 2008) |
| 2008 | *Program Committee*, 25th International Conference on Machine Learning (ICML 2008) |
| 2008 | *Scientific Committee*, 8th European Workshop on Reinforcement Learning (EWRL'08) |
| 2007 | *Program Committee*, 1st CP Workshop on Autonomous Search (WAS 2007) |
| 2007 | *Program Committee*, 19th IEEE Conference on Tools with Artificial Intelligence |
| 2007 | *Program Committee*, 22nd National Conference on Artificial Intelligence (AAAI 2007) |
| 2007 | *Program Committee*, 23rd Conference on Uncertainty in Artificial Intelligence (UAI2007) |
| 2007 | *Program Committee*, 4th Intl Conference on Autonomic and Trusted Computing (ATC07) |
| 2007 | *Program Committee*, 18th European Conference on Machine Learning (ECML 2007) |
| 2007 | *Program Committee*, IEEE International Symposium on Approximate Dynamic Programming and Reinforcement Learning (IEEE ADPRL 2007) |

2006 *Program Committee*, ICML Workshop on Kernel Machines and Reinforcement Learning

2006 *Co-Organizer*, AAAI-06 Workshop on Auction-Based Methods for Robot Coordination

2006 *Program Committee*, 17th European Conference on Machine Learning (ECML 2006)

2006 *Program Committee*, 22nd Conference on Uncertainty in Artificial Intelligence (UAI2006)

2006 *Program Committee*, Robotics: Science and Systems 2006 (RSS 2006)

2005 *Co-Organizer*, NIPS Workshop on Reinforcement Learning Benchmarks and Bake-offs

2005 *Program Committee*, 21st Conference on Uncertainty in Artificial Intelligence (UAI2005)

2005 *Program Committee*, International Conference on Multi-Agent Systems (AAMAS 2005)

2005 *Program Committee*, 20th National Conference on Artificial Intelligence (AAAI 2005)

2004 *Program Committee*, 13th International Conference on Machine Learning (ICML 2004)

2003 *Program Committee*, 12th International Conference on Machine Learning (ICML 2003)

2000 – present *Reviewer* for the journals (alphabetically): the *Annals of Mathematics and Artificial Intelligence (AMAI)*, *Applied Mathematics Letters (AML)*, the *Artificial Intelligence Journal (AIJ)*, *Automatica*, *Autonomous Robots*, the *Computer Journal (CompJ)*, the *Journal of Artificial Intelligence Research (JAIR)*, the *Journal of Autonomous Agents and Multi-Agent Systems (JAAMAS)*, the *Journal of Field Robotics (JFR)*, the *Journal of Intelligent and Robotic Systems (JINT)*, the *Journal of Machine Learning Research (JMLR)*, the *Journal of Parallel and Distributed Computing (JPDC)*, the *Journal of Robotics and Autonomous Systems (JRAS)*, the *Journal of Theory and Practice of Logic Programming (TPLP)*, the *IEEE Transactions on Automatic Control (TAC)*, the *IEEE Transactions on Automation Science and Engineering (TASE)*, the *IEEE Transactions on Cybernetics (ToC)*, the *IEEE Transactions on Evolutionary Computation (IEEE-TEC)*, the *IEEE Transactions on Neural Networks (IEEE-TNN)*, the *IEEE Transactions on Robotics and Automation (IEEE-TRA)*, the *IEEE Transactions on Robotics (IEEE-TRO)*, the *IEEE Transactions on Systems, Man, and Cybernetics (IEEE-SMC)*, *IET Control Theory & Applications (IET-CTA)*, *Information Sciences: an International Journal (ISIJ)*, the *International Journal of Artificial Intelligence Tools (IJAIT)*, the *Machine Learning Journal (MLJ)*, *Neurocomputing*, the *SIAM Journal on Control and Optimization (SICON)*.

2000 – present *Reviewer* for the conferences (alphabetically): AAAI 2002, ECC 2007, ECC 2014, FLAIRS 2006, HEROC 2009, IEEE–ACC 2006, IEEE–CASE 2005, IEEE–CASE 2007, IEEE–CDC 2000, IEEE–CDC 2010, IEEE–ICRA 2005, IEEE–ICRA 2008, IEEE–ICRA 2009, IEEE–ICRA 2010, IEEE–ICRA 2011, IEEE–IROS 2009, IEEE–MED 2013, IJCAI 2001, IJCAI 2003, IJCAI 2005, IJCAI 2007, NIPS*2001, NIPS*2002, NIPS*2003, NIPS*2004, NIPS*2005, NIPS*2006, NIPS*2007, NIPS*2008, SETN 2004.

1998 – 2002 *Student Volunteer* for the conferences: AAAI–1998, AAAI–1999, ICML–2000, AAAI–2000, IJCAI–2001, NIPS*2001, AAAI–2002, NIPS*2002.

1999 / 2001 *Tutorials Committee*, 21st / 23rd Annual Meetings of the Cognitive Science Society

1998 *Student Volunteer* for the 1998 ACM International Collegiate Programming Contest

- **To Technical University of Crete**

2007 – present *Editor*, ECE Undergraduate Program Guides (Greek and English)

2014 – 2015 *Member*, ECE Undergraduate Program of Study Reform Committee

2013 – 2014 *Member*, ECE Undergraduate Studies Committee

2013 – 2014 *Vice Departmental Representative*, TUC Library Committee

2009 – 2013 *Departmental Representative*, TUC Library Committee

2008 – 2009 *Member*, TUC Internal Research Funding Committee

2008 – 2009 *Vice Departmental Representative*, TUC Library Committee

2008 – 2009 *Vice Member*, ECE Postgraduate Studies Committee

2007 – 2011 *Member*, Editorial Board of TUC News

2007 – 2008 *Vice Departmental Representative*, Technical University of Crete Senate

2007 – 2008 *Member*, ECE Undergraduate Studies Committee

2005 – 2008 *Visit Organizer*, Faculty Search Committee of the Division of Computer Science

2005 – 2008 *Administrator*, ECE Departmental Website and Faculty Mailing Lists

- **To Duke University**

2002 – 2003 *Resident Manager*, Duke International House

2001 – 2002 *Executive Board Member*, Graduate and Professional Student Council (GPSC)

2001 – 2002 *Board Member*, Center for Instructional Technology (CIT)

1999 – 2002 *President*, Duke Hellenic Association

2000 – 2001 *Graduate Student Liaison to the Faculty*, Department of Computer Science

1999 – 2000 *Graduate Student Faculty Search Committee*, Department of Computer Science

- **To the Community**

1990 – present *Byzantine chanter* serving various Greek Orthodox Christian parishes

2005 – 2012 *Vice Member*, Governing Board of the Ecclesiastic School of Crete, Chania, Greece

2006 – 2007 *Member*, Governing Board of the Ecclesiastic Academy of Crete, Herakleion, Greece

2004 – 2005 *Treasurer*, Samaria Chapter of Atlanta, Pancretan Association of America

1990 – 1995 *Youth summer camp organizer, choir director, and Sunday school teacher*
Orthodox Christian Center, Patras, Greece

# References

Available on request.

## Personal Activities

| | |
|---|---|
| 2012 – present | Member of the *Byzantine Choir of Chania*, Chania, Greece |
| 2012 – present | Member of the Traditional Music Choir of the *Manioudakis Conservatory*, Chania, Greece |
| 2009 – present | Member of the Byzantine Choir *Georgios the Cretan*, Chania, Greece |
| 2003 – 2005 | Member of the Greek Folk and Rembetiko Music Ensemble *Tesserae*, Atlanta, GA |
| 2000 – 2005 | Member of the *Romeiko* Vocal Ensemble, Philadelphia, PA |
| 1999 – 2003 | Leader of the Greek Folk Dancing Troupe, Duke Hellenic Association, Durham, NC |
| 2001 – 2003 | Member of the Greek Folk Music Ensemble *Parea*, Durham, NC |
| 1997 – 1998 | Member of the *University Chorale*, University of Louisiana, Lafayette, LA |
| 1995 – 1996 | Member of the *Greek Byzantine Choir*, Athens, Greece |
| 1990 – 1995 | Diploma in Byzantine Music (completed), Philharmonic Conservatory, Patras, Greece |
| 1986 – 1991 | Yamaha Portatone and Electone Programs (completed), Nakas Conservatory, Greece |
| 1984 – 1985 | Classical Piano Courses, Conservatory of Northern Greece, Thessaloniki, Greece |

## Personal Information

- Born in 1972 in Herakleion, Crete, Greece
- Citizenship/Nationality: Greek
- Family Status: Married, two children
- Languages: English (fluent), Greek (native)
- Military Service: Greek Artillery Force (completed in 1996)
- Hobbies: Music (Byzantine, Greek, Modal, World), Dancing (Folk), Traveling, Photography