

Dr. Nikos Karanikolas

CONTACT INFORMATION	Researcher in Computer Science & Engineering <i>Address:</i> Kefallinias 2 26223, Patras, Greece.	<i>Mobile:</i> +33-0781146514 <i>E-mail:</i> nkaran@gmail.com <i>Website:</i> http://students.ceid.upatras.gr/~nkaranik/
RESEARCH INTERESTS	Computational Social Choice, Information Visualization, Argumentation, Design and Analysis of Algorithms, Computational Complexity, Approximation Algorithms, Algorithmic Aspects of Communication Networks, Routing algorithms.	
EDUCATION	University of Patras , Patras, Greece PhD in Computer Science and Engineering, Department of Computer Engineering and Informatics, January 2009 - June 2014 <ul style="list-style-type: none">• Thesis Topic: <i>Computational Aspects in Social Choice Theory</i> (in greek)• Advisor: Professor Christos Kaklamanis M.Sc. in Computer Science and Engineering, Department of Computer Engineering and Informatics, December 2008 <ul style="list-style-type: none">• Thesis Topic: <i>Computational Aspects in Social Choice: A study of Dodgson elections</i>• Advisor: Professor Christos Kaklamanis Diploma in Computer Engineering and Informatics, June 2006	
ACADEMIC APPOINTMENTS	Postdoctoral researcher Department of Computer Engineering and Informatics, University of Patras, Greece. <ul style="list-style-type: none">• Subject: “Applications of computational methods in aspects of Social Choice Theory.”• Supervisor: Professor Christos Kaklamanis Postdoctoral Researcher GraphIK, LIRMM (University of Montpellier) and INRA. <ul style="list-style-type: none">• Subject: “Argumentation and Computational Social Choice in Agricultural applications”• Supervisors: Research Engineer (HDR – qualified Senior Researcher) Patrice Buche, Associate Professor Madalina Croitoru, Research Scientist Rallou Thomopoulos, Research Scientist Pierre Bisquert Postdoctoral Researcher Équipe Ingénierie de l’Interaction Homme-Machine, Laboratoire d’Informatique de Grenoble , Institut polytechnique de Grenoble <ul style="list-style-type: none">• Subject: “Interactive visualization of voting procedures”• Supervisors: Assistant Professor Renaud Blanch, Assistant Professor Sylvain Bouveret	November 2017 till now November 2016 - October 2017 October 2014 to October 2015

JOURNAL
PUBLICATIONS

- [1] P. Bisquert, M. Croitoru, C. Kaklamanis and N. Karanikolas. A Decision-Making approach where Argumentation added value tackles Social Choice deficiencies. *Progress in Artificial Intelligence*, June 2019, Volume 8, Issue 2, pp. 229–239.
- [2] N. Karanikolas, P. Bisquert, P. Buche, C. Kaklamanis, and R. Thomopoulos. A Decision Support Tool for Agricultural Applications Based on Computational Social Choice and Argumentation. *International Journal of Agricultural and Environmental Information Systems (IJAEIS)*, Volume 9, Issue 3, pp. 54-73, 2018.
- [3] I. Caragiannis, C. Kaklamanis, N. Karanikolas, and A. D. Procaccia. Socially desirable approximations for Dodgson’s voting rule. *ACM Transactions on Algorithms*, Volume 10, Issue 2, February 2014.
- [4] I. Caragiannis, J. A. Covey, M. Feldman, C. M. Homan, C. Kaklamanis, N. Karanikolas, A. D. Procaccia, and J. S. Rosenschein. On the approximability of Dodgson and Young elections. *Artificial Intelligence*, 187-188, pp. 31-51, 2012.

CONFERENCE
PUBLICATIONS

- [1] N. Karanikolas, P. Bisquert and C. Kaklamanis. A Voting Argumentation Framework: Considering the Reasoning behind Preferences. In *Proceedings of the 11th International Conference on Agents and Artificial Intelligence (ICAART 19)*, Volume 1, pp. 42-53, 2019 (Best Paper Award Runner-up).
- [2] N. Karanikolas, M. Croitoru, P. Bisquert, C. Kaklamanis, R. Thomopoulos, and B. Yun. Multi-Criteria Decision Making with Existential Rules using Repair Techniques. In *Proceedings of the AI-2018, Thirty-eighth SGA International Conference on Artificial Intelligence*, pp. 177-183, 2018.
- [3] P. Bisquert, M. Croitoru, N. Karanikolas. A Qualitative Decision-Making Approach Overlapping Argumentation and Social Choice. In *Proceedings of the ADT 2017, the 5th International Conference on Algorithmic Decision Theory*, pp. 344-349, 2017.
- [4] P. Bisquert, P. Buche, M. Croitoru, N. Karanikolas and R. Thomopoulos. Selection of agro-waste valorisation routes based on a computational social choice and argumentation decision support tool (Extended Abstract). In *EFITA WCCA CONGRESS, European conference dedicated to the future use of ICT in the agri-food sector, bioresource and biomass sector*, 2017.
- [5] N. Karanikolas, R. Blanch and S. Bouveret. Edge-Compressed Majority Graph: Where Social Choice Meets Information Visualization. In *Proceedings of the Sixth International Workshop on Computational Social Choice (COMSOC 16)*, 2016.
- [6] I. Caragiannis, C. Kaklamanis, N. Karanikolas, and A. D. Procaccia. Socially desirable approximations for Dodgson voting rule. In *Proceedings of the 11th ACM Conference on Electronic Commerce (EC 10)*, pp. 253-262, 2010.

- [7] I. Caragiannis, J. A. Covey, M. Feldman, C. M. Homan, C. Kaklamanis, N. Karanikolas, A. D. Procaccia, and J. S. Rosenschein. On the approximability of Dodgson and Young elections. In *Proceedings of the 20th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA 09)*, pp. 1058-1067, 2009.

OTHER
PUBLICATIONS

- [1] N. Karanikolas, M. Kyropoulou, and T. B. Sørensen. Editor’s puzzle: Borrowing as cheaply as possible. *SIGecom Exchanges*, 10(2).

PROFESSIONAL
EXPERIENCE

- Researcher in the Integrated Project ICT-2010-258307 EULER “Experimental UpdateLess Evolutive Routing”, University of Patras (Greece).
 - April 2010 - June 2014
 - Research work in the project
 - Coordination, tracking and reporting of the project.
- Computer Engineer in Integrated Systems conducting Electronic Lotteries, Research Academic Computer Technology Institute, Patras (Greece).
 - January 2010 - December 2010
 - Monitoring, Maintenance and Upgrade of the random number generator for the lottery game “Kino” (Hypergen and Cryptogen systems).
- Computer Engineer in Research Integrated Project IP-FP6-015964 “Algorithmic Principles for Building Efficient Overlay Computers (AEOLUS)”, University of Patras (Greece).
 - January 2007 - February 2010 and January 2014 - September 2014
 - Design and development of a peer-to-peer task scheduling application (OCP) using Java environment and the JXTA protocol.
 - Research work in the project
 - Coordination, tracking and reporting of the project.
- Trainer in the Educational Training Programme for Informatics Teachers in the secondary education (high school)- PE19-20-Subproject/1, Greek Ministry of Education.
 - Preparing material for the lectures
 - Lesson planning
 - Analyzing teaching methods for the course of Software development.

TEACHING
EXPERIENCE

Department of Computer Engineering and Informatics, University of Patras, Greece, *Teaching Assistant for the courses*

- Communication Algorithms (2007-2010)
- Cryptography (2007-today)
- Theory of Computing (2007 - today)

PROGRAM
COMMITTEE

Program Committee member for the following conferences.

- 25th International Joint Conference on Artificial Intelligence (IJCAI-16)
- 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence (IJCAI-ECAI 2018) (distinguished member)
- 28th International Joint Conference on Artificial Intelligence (IJCAI 2019)

JOURNAL-
CONFERENCE
REVIEWING

- For the following journals: Theoretical Computer Science, ACM Journal on Experimental Algorithmics
- For the following conferences: International Symposium on Algorithmic Game Theory (SAGT 09), Annual European Symposium on Algorithms (ESA 09), Workshop on Approximation and Online Algorithms (WAOA 10, WAOA 11, WAOA 12), High Performance Computing Conference (HiPC 10), International Conference on FUN WITH ALGORITHMS (FUN 2012), Conference on Artificial Intelligence (AAAI-17).

SKILLS

- Project Engineering
 - Project Planning and Implementation
 - Project Coordination
- Programming Languages
 - Java (Advanced)
 - JXTA (protocol)
 - Graphics2D (API)
 - C (Novice)
 - C++ (Novice)
 - Python (Novice)
- Research
 - Design and Analysis of Algorithms
- Teaching
- Academic writing
 - Proofreading
 - LaTeX
- Operating Systems
 - Windows Family
 - Unix
 - Mac OS
 - Android
 - MS-DOS

SCHOLARSHIPS

- PhD scholarship funded by the Research Funding Program: Heracleitus II, 2010-2014.
- Post-doctoral scholarship funded by the Greek State Scholarships Foundation (IKY), 2017-2019.

TRAINING
SEMINARS
(SCHOOLS)

- AEOLUS School on Algorithmic Game Theory (Patras, Greece, 18-19 December 2006). Collocated with the 2nd International Workshop on Internet & Network Economics (WINE 06).
- COST-ADT Doctoral School on Computational Social Choice (Estoril, Portugal, 9-14 April 2010).

- Summer school on Algorithmic Game Theory (Samos, Greece, 14-21 July 2012).
- Summer School on Matching Problems, Markets, and Mechanisms (Budapest, Hungary, 24-28 June 2013).
- Summer School on Fair Division (Grenoble, France, 13-17 July 2015).
- Workshop on Decision Making (Toulouse, France, 24-26 April 2017).
- Theoretical Aspects of e-Democracy (Toulouse, France, 27 April 2017).

FOREIGN
LANGUAGES

- English: Certificate of Proficiency, Michigan University
- French: Beginner-Intermediate (Level B1)

INTERESTS
ACTIVITIES

- Radio producer in the Radio station of the University of Patras and ERT Radio
- Sports (basketball, football, ski)
- Travel
- Cinema (film-making and video editing)