

Dimitrios Michail

PhD, Max-Planck-Institute, 2006

Projet Mascotte
INRIA Sophia Antipolis Méditerranée
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Goal

Obtaining a postdoc or faculty position in theoretical computer science.

Biography

place of birth Athens, Greece
date of birth 14/04/1979
nationality Hellenic

Education

- 2003–2006 **PhD in Computer Science.**
Summa cum laude
“Minimum Cycle Basis, Algorithms & Applications”
Advisor: Prof. Dr. Kurt Mehlhorn
Max-Planck Institut für Informatik, Saarbrücken, Germany
- 2002–2003 **MSc in Computer Science.**
First class honours degree
Max-Planck Institut für Informatik, Saarbrücken, Germany
- 1997–2002 **Diploma in Electronics and Computer Engineering.**
First class honours degree
“SCLOB - A load balanced P2P content sharing network”
Advisor: Prof. Dr. Peter Triantafillou
Technical University of Crete, Chania, Greece

Research Interests

I am broadly interested in the design, analysis and efficient implementation of exact, approximate algorithms, and data structures. Topics that I often touch are algorithmic graph theory and algebraic graph theory.

I am also interested in experimental algorithmics, programming languages, and programming libraries design.

Employment

- Oct 2007 - **Postdoctoral Researcher**, *INRIA (French National Institute for Research in Computer Science and Control)*, *Sophia-Antipolis Méditerranée*, Nice, France.

- Dec 2006 - Sep 2007 **Postdoctoral Researcher**, *Max-Planck-Institut für Informatik*, Saarbrücken, Germany.
- Jan 2006 - Dec 2006 **Project of the German-Israeli Foundation (GIF) on Efficient Graph Algorithms**, *Max-Planck-Institut für Informatik*, Saarbrücken, Germany.
- Oct 2002 - Dec 2006 **Researcher**, *Algorithms and Complexity Department*, Max-Planck-Institute for Informatics, Saarbrücken, Germany.
- Oct 2001 - Sep 2002 **Researcher**, *Software Systems and Network Application Laboratory*, Technical University of Crete, Chania, Greece.

Conference Program Committees

- ICTCS'07 10th Italian Conference on Theoretical Computer Science.

Awards, Scholarships and Competitions

- 2007–2008 **Alain Bensoussan Fellowship**.
European Research Council for Informatics and Mathematics
- 2006–2007 **Post-doctoral scholarship**.
Max-Planck Society
- 2003–2006 **Scholarship for PhD degree**.
International Max-Planck Research School
- 2002–2003 **Scholarship for MSc degree**.
International Max-Planck Research School
- 2000-2001 **Excellence award in Technical University of Crete**.
Technical Chamber of Greece
- 2000 **Greek Collegiate Programming Contest**, *Athens, Greece*.
Representing Technical University of Crete
- 1999-2000 **Excellence award in Technical University of Crete**.
Technical Chamber of Greece
- 1999,2000,2001 **SouthEastern European ACM Collegiate Programming Contest**, *Bucharest, Romania*.
Representing Technical University of Crete

Theses

- [1] *Minimum Cycle Basis, Algorithms & Applications*. PhD thesis, Max-Planck-Institut für Informatik and Universität des Saarlandes, Saarbrücken, Germany, 2006
- [2] *SCLOB - A load balanced P2P content sharing network*. Diploma thesis, Technical University of Crete, Chania, Greece, 2002

Manuscripts

- [3] with K. Mehlhorn. *Minimum Cycle Bases: Faster and Simpler*. Saarbrücken, Germany, 2007. submitted

Journal Publications

- [4] *Reducing Rank-Maximal to Maximum Weight Matching*. Theoretical Computer Science, 389(1-2):125-132, 2007.
- [5] with T. Kavitha, and K. Mehlhorn. *A Faster Algorithm for Minimum Cycle Basis of Graphs*. Algorithmica, 2007. Accepted for publication.
- [6] with C. Gotsman, K. Kaligosi, K. Mehlhorn, and E. Pyrga. *Cycle Bases of Graphs and Sampled Manifolds.*, Computer Aided Geometric Design, 24(8-9):464-480, 2007.
- [7] with T. Kavitha, K. Mehlhorn, and K. Paluch. *Strongly Stable Matchings in Time $O(nm)$ and Extension to the Hospitals-Residents Problem*. ACM Transactions on Algorithms, 3(2), 2007.
- [8] with K. Mehlhorn. *Implementing Minimum Cycle Basis Algorithms*. ACM Journal of Experimental Algorithmics, 11(2):1-14, 2006. Selected papers from WEA'05.
- [9] with R.W. Irving, T. Kavitha, K. Mehlhorn, and K. Paluch. *Rank-Maximal Matchings*. ACM Transactions on Algorithms, 2(4):602-610, 2006. Invited paper from SODA'04.

Conference Publications

- [10] with C-C. Huang, T. Kavitha, and M. Nasre. *Bounded Unpopularity Matchings*. In Proceedings of the 11th Scandinavian Workshop on Algorithm Theory (SWAT'08). to appear
- [11] with T. Kavitha, and K. Mehlhorn. *New Approximation Algorithms for Minimum Cycle Bases of Graphs*. In Proceedings of the 24th International Symposium on Theoretical Aspects of Computer Science (STACS'07).
- [12] with K. Mehlhorn. *Implementing Minimum Cycle Basis Algorithms*. In Proceedings of the 4th International Workshop on Efficient and Experimental Algorithms (WEA'05), volume 3503 of LNCS, pages 32-43, 2005.
- [13] with T. Kavitha, K. Mehlhorn, and K. Paluch. *A Faster Algorithm for Minimum Cycle Basis of Graphs*. In Proceedings of the 31st International Colloquium on Automata, Languages and Programming (ICALP'04).
- [14] with T. Kavitha, K. Mehlhorn, and K. Paluch. *Strongly Stable Matchings in Time $O(nm)$ and Extension to the Hospitals-Residents Problem*. In Proceedings of the 21st International Symposium on Theoretical Aspects of Computer Science (STACS'04).
- [15] with R.W. Irving, T. Kavitha, K. Mehlhorn, and K. Paluch. *Rank-maximal matchings*. In Proceedings of the 15th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'04).

Service as Referee

journals Journal of Scheduling, Journal of Graph Algorithms and Applications
 conferences ICALP, STACS, SOCG, FSTTCS

Software Portfolio

2004–2008 **Minimum Cycle Basis, LEDA Extension Package (LEP)**.

<http://www.algorithmic-solutions.com/enleps.htm>

This is a LEDA extension library which contains implementations of exact and approximation algorithms in order to compute minimum cycle bases in edge-weighted undirected and directed graphs.

2004–2008 **Rank-Maximal Matchings, LEDA Extension Package (LEP).**

<http://www.algorithmic-solutions.com/enleps.htm>

This is a LEDA extension library which implements algorithms which compute rank-maximal matchings in bipartite graphs.

Technical Skills

OS	Linux, Unix, Windows	administration	Linux, Apache, Mailman
programming	C/C++/C#, JAVA	scripting	Shell, PHP
scientific	Matlab	typography	L ^A T _E X, T _E X
web design	HTML, XML, CSS	database	SQL

Languages

Greek	Native
English	Excellent
German	Good

References

on request