



NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

FACULTY OF SCIENCE
DEPARTMENT OF INFORMATICS & TELECOMMUNICATIONS
SECTION OF THEORETICAL INFORMATICS

Panepistimiopolis

157 84 Athens, GREECE

Tel.: (+30) 2107275229, (+30) 2107275300

Fax: (+30) 2107275114

Email: mlouka@di.uoa.gr

URL: <http://parallel.di.uoa.gr/PSCL/M.Louka>

https://www.researchgate.net/profile/Maria_Louka

https://www.linkedin.com/profile/view?id=322539024&trk=nav_responsive_tab_profile

Athens, April 23, 2014

CURRICULUM VITAE – M. A. LOUKA

Name

Maria A. Louka

Academic Qualifications

2006 - 2011: Ph.D., Department of Informatics and Telecommunications, National and Kapodistrian University of Athens, Greece.

2004 - 2005: M.Sc., Department of Informatics and Telecommunications, National and Kapodistrian University of Athens, Greece.

2000 - 2004: B.Sc., Department of Informatics, Technological Educational Institute of Athens, Greece.

1985 - 1990: B.Sc., Department of Mathematics, University of Ioannina, Greece.

Foreign Languages

English, French

Positions held

2011-today: Post Doctor, Department of Informatics and Telecommunications, Section of Theoretical Informatics, National and Kapodistrian University of Athens, Greece

2011-today: Co-lecturer, Department of Informatics and Telecommunications, Section of Theoretical Informatics, National and Kapodistrian University of Athens, Greece

2006-2011: Teaching assistant, Department of Informatics and Telecommunications, Section of Theoretical Informatics, National and Kapodistrian University of Athens, Greece

1990 – today: High school teacher in Informatics and Mathematics.

2000-2004: Instructor in Computer Science, Hellenic Naval Academy, Piraeus, Greece.

1999 - 2001: Instructor in Computer Science, Hellenic Naval School of Cadet Petty Officers, Athens, Greece

Research Interests

- Parallel Numerical Solution of Partial Differential Equations
- Parallel Numerical Linear Algebra
- Combinatorial Scientific Computing
- Parallel Computational Fluid Dynamics
- Algebraic Graph Theory

Professional Activities and Service

Reviewer: Computers and Mathematics with Applications.

Teaching

Teaching Assistant in the following graduate courses

1. Numerical Linear Algebra (exercises)

Co-lecturer in the following postgraduate courses

1. Scientific Computing (Numerical Solution of Partial Differential Equations)
2. Parallel Algorithms

Projects

- 2008 - 2009: Generalized Iterative methods for the solution of augmented linear systems. (KAPODISTRIAS, 70/4/7852)
- 2007 - 2008: Parallel methods for the numerical solution of Partial Differential Equations (KAPODISTRIAS, 70/4/7852)
- 2004 – 2006: Distributed Iterative Methods for the Numerical Solution of the Convection Diffusion Equation with applications in numerical weather prediction systems. (PYTHAGORAS I, 70/3/7418)

Memberships

1. Member of Hellenic Mathematical Society (HMS)
2. Member of Greek Computer Society

Publications in Journals

- [1] M. A. Louka, N. M. Missirlis and F. I. Tzaferis, The impact of the eigenvalues locality on the convergence behaviour of the PSD method for two-cyclic matrices, *Linear Algebra and its Applications*, vol. 430, Issues 8-9, pp. 1929-1944, 2009.
- [2] M. A. Louka, N. M. Missirlis and F. I. Tzaferis, Is Modified PSD equivalent to Modified SOR for two-cyclic matrices, *Linear Algebra and its Applications*, vol. 432, pp. 2798–2815, 2010.
- [3] Y. Cotronis, E. Konstadinidis, M. A. Louka and N. M. Missirlis, A comparison of CPU and GPU implementations for solving the Convection Diffusion equation using the local Modified SOR method, *Parallel Computing*, 2014 (in press).

Publications under revision

[1] M. A. Louka and N. M. Missirlis, A comparison of the Extrapolated Successive Overrelaxation and the Preconditioned Simultaneous Displacement methods for augmented linear systems.

Publications in Conferences

[1] M. A. Louka, N. M. Missirlis and F. I. Tzaferis, The Optimum Preconditioned Simultaneous Displacement Method for 2-cyclic matrices, Conference in Numerical Analysis NumAn2007, Kalamata, Hellas, September 2007.

[2] M. A. Louka, N. M. Missirlis and F. I. Tzaferis, The Modified Preconditioned Simultaneous Displacement (MPSD) Method for two-cyclic systems, IMA Conference on Numerical Linear Algebra and Optimization, University of Birmingham, UK, September 2007.

[3] M. A. Louka, N. M. Missirlis and F. I. Tzaferis, The Generalized Extrapolated SOR method for augmented linear systems, Conference in Numerical Analysis NumAI2008, Kalamata, Hellas, September 2008.

[4] M. A. Louka and N. M. Missirlis, Generalized Iterative Methods, Conference in Numerical Analysis NumAn2010, Chania, Hellas, September 2010.

[5] Y. Cotronis, E. Konstantinidis, M. A. Louka and N. M. Missirlis, Parallel SOR for solving the Convection Diffusion equation using GPUs with CUDA, International European Conference on Parallel and Distributed Computing, EuroPar 2012, Rhodes, Hellas.

[6] M. A. Louka and N. M. Missirlis, Generalized Iterative methods for augmented linear systems, Conference in Numerical Analysis NumAn2012, Ioannina, Hellas, September 2012.

Ph.D. and M.Sc. Monographs

[1] M. A. Louka, Iterative Methods for the Numerical Solution of linear systems, Ph. D thesis, 2011.

[2] M. A. Louka, Parallel Iterative Methods, M.Sc. thesis, 2005.