

Ana-Maria Oprescu

CONTACT INFORMATION Faculty of Sciences
Department of Computer Science
Universiteit van Amsterdam
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System and Network Engineering (SNE)
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RESEARCH INTERESTS User-oriented perspective on Cloud infrastructures and platforms, Grid-enabled applications, algorithms for high performance distributed computing, stochastic devices applied to computer science.

EDUCATION **Vrije Universiteit**, Amsterdam, The Netherlands
Ph.D. Degree in Computer Science, March, 2013

- Dissertation Topic: "Stochastic Approaches to Self-Adaptive Application Execution on Clouds"
- Supervisors: Henri Bal, Thilo Kielmann

M.S., Parallel and Distributed Computer Systems, August, 2006

- Dissertation Topic: "Replicated Method Invocation with Matrix Time Stamps"
- Supervisors: Thilo Kielmann, Jason Maassen

School of Computing, National University of Singapore, Singapore
Internship exchange program for the B.Sc. Degree final project, March - August, 2004.

- Supervisor: Chin Wei Ngan

Faculty of Automatic Control and Computers(FACC), "Politehnica" University Bucharest, Romania
B.S., Computer Science and Engineering, September, 2004

- Dissertation Topic: "An Implementation of a Type System for Resource Protocol Verification"
- Supervisors: Nicolae Țăpuș, Chin Wei Ngan

HONORS AND AWARDS Vrije Universiteit: graduated Magna Cum Laude, Honors in Parallel and Distributed Computer Systems Master Program, August, 2006
May, 2005 Huygens Scholarship for 10 months, commencing on 1 September 2005
April, 2005 Rutgers Scholarship for 12 months, commencing on 16 August 2005
February, 2003 Student Scientific Seminar, FACC, PUB -Software section obtained second prize
February, 2002 Student Scientific Seminar, FACC, PUB -Software section obtained first prize
October, 2002 September, 2004 Excellence Scholarship, FACC, PUB

ACADEMIC EXPERIENCE **Universiteit van Amsterdam**, Amsterdam, The Netherlands
PostDoctoral Researcher **September, 2012 - present**
Includes research on Platform-as-a-Service through integration of existing services.

Vrije Universiteit, Amsterdam, The Netherlands
Guest Researcher **April, 2012 - present**
Includes Master students supervision.

PhD Student

September, 2006 - April, 2012

Includes current Ph.D. research, Masters level coursework (Computer Graphics) and active participation in EU-funded project deliverables.

Research Assistant

January - September, 2005; October, 2005 - September, 2006

Implemented components for grid middleware within the Parallel Programming Research Team.

University of Pisa, Italy

Visiting Researcher

June, 2008

Conducted a two-week research visit under the supervision of prof. dr. Marco Danelutto to identify whether problems like load-balancing or fault-tolerance can be addressed by integrating autonomic behavior in existing Grid applications.

- A.-M. Oprescu, T. Kielmann, M. Danelutto, M. Aldinucci. Autonomic Behavior of Grid Applications using Component Platforms, CoreGRID Technical Report Number TR-0156, July 2008.

Faculty of Automatic Control and Computers(FACC), "Politehnica" University Bucharest, Romania

Teaching Assistant

October, 2003 - February, 2004

Reinforcement of "Data Structures and Algorithms" course knowledge by practical support; Teaching language: English.

Teaching Assistant

February - June, 2003

Reinforcement of "Formal Languages and Automata" course knowledge by practical support; Teaching language: Romanian.

CNTI High Performance Computing Laboratory, Politehnica University of Bucharest, Romania

Programmer

September, 2003

Developed a web tool integrated in the uPortal framework for users of CNTI portal. The web tool allowed a user to manage her account without requiring web programming expertise.

Research Assistant

February - June, 2002

Tailored C45 (Quinlan) on a Linux platform for a News Broker Web application that needed on-the-fly file categorization.

- 286-290, 3rd EUROPEAN CONFERENCE E-COMM-LINE, Bucharest , September 26-27 , 2002.

PUBLICATIONS

Marc X. Makkes, Ana-Maria Oprescu, Rudolf Strijkers, Cees de Laat, Rob Meijer. MeTRO: Low Latency Network Paths with Routers-on-Demand, LSDVE workshop, co-located with EuroPAR 2013, Aachen, Germany.

Ana-Maria Oprescu, Spyros Voulgaris, Haralambie Leahu. Strategies for Generating and Evaluating Large-Scale P2P Overlays, DAIS 2013, Florence, Italy.

Alexandra Vintila, Ana-Maria Oprescu, Thilo Kielmann. Fast (Re-)Configuration of Mixed On-demand and Spot Instance Pools for High-throughput Computing, ORMaCloud workshop, co-located with HPDC 2013, New York, USA.

Ana-Maria Oprescu, Thilo Kielmann, Haralambie Leahu. Stochastic Tail-phase Optimization for Bag-of-Tasks Execution in Clouds, The 5th IEEE/ACM International Conference on Utility and Cloud Computing (UCC 2012), Chicago, IL, USA, November 2012.

Ana-Maria Oprescu, Thilo Kielmann, Haralambie Leahu. Budget Estimation and Control for Bag-of-Tasks Scheduling in Clouds, accepted for publication, Parallel Processing Letters Journal, 2011.

Guillaume Pierre, Ismail el Helw, Corina Stratan, Ana Oprescu, Thilo Kielmann, Thorsten Schuett, Jan Stender, Matej Artac, Ales Cernivec. ConPaaS: an Integrated Runtime Environment for Elastic Cloud Applications, ACM/IFIP/USENIX 12th International Middleware Conference, (poster paper), Lisbon, Portugal, December 2011.

Ana-Maria Oprescu, Thilo Kielmann. Bag-of-Tasks Scheduling under Budget Constraints, Proc. 2nd IEEE International Conference on cloud Computing Technology and Science (CloudCom 2010), Indianapolis, USA, Nov/Dec 2010. (Presentation video is available on computer.org).

Ana-Maria Oprescu, Thilo Kielmann, Wan Fokkink. FTRepMI: Fault-Tolerant, Sequentially-Consistent Object Replication for Grid Applications, International Conference on Distributed Computing and Networking (ICDCN 2009), January 3-6, 2009, Hyderabad, India. Published as LNCS 5408, pp. 368-376, Springer.

Gosia Wrzesinska, Ana-Maria Oprescu, Thilo Kielmann, and Henri Bal. Persistent Fault-tolerance for Divide-and-Conquer Applications on the Grid, Euro-Par 2007, Rennes, France, August 2007, pp. 415-426, Published as LNCS, Volume 4641.

Rob van Nieuwpoort, Jason Maassen, Andrei Agapi, Ana-Maria Oprescu and Thilo Kielmann. Experiences deploying parallel applications on a large-scale Grid. EXPGRID - Experimental Grid testbeds for the assessment of large-scale distributed applications and tools, workshop held in conjunction with HPDC-15, Paris, France, June 2006.

Stevens Le Blond, Ana-Maria Oprescu, Chen Zhang. Early Application Experience with the Grid Application Toolkit (GAT). Workshop on Grid Applications: From Early Adopters to Mainstream Users, GGF-14, Chicago, IL, USA, June 2004. Published by GGF as GFD.68, 2006.

PAPERS IN
PREPARATION

Ana-Maria Oprescu, Thilo Kielmann, Haralambie Leahu. A Theoretical Model for Quality Assessment of Schedule Estimates for Bag-of-Tasks Execution in Clouds.

PROFESSIONAL
EXPERIENCE

Donald Smit, Center for Information Technology, RijksUniversiteit, Groningen, The Netherlands

HPDC Expert

April, 2012 - September, 2012

Most of my work focused on tailoring a Hadoop installation to the needs of an astronomy-oriented information system, Astro-WISE (<http://www.astro-wise.org>), developed and maintained by a CIT partner, namely the Astro-WISE consortium. My responsibilities also included support for RuG scientists in their effort to parallelize and distribute their applications.

Byblos Ed., Bucharest, Romania

Contributed to the Romanian translation of Modern Operating Systems by Andrew S. Tanenbaum, 2nd edition, 2004.

Contributed to the Romanian translation of Computer Networks by Andrew S. Tanenbaum, 4th edition, 2003.

MDCR- Motorola DSP Center, Romania

Programmer

February - July, 2003

Translated in the compiler the data section of TI C54 to a Virtual Machine over SC140.

COMPUTER SKILLS

- Languages: Java, C/C++, use of Unix shell scripts.
- Applications: L^AT_EX, spreadsheets and presentation software, Gnuplot.
- Operating Systems: Unix/Linux, Windows.

