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Academic Career:	Aug 2008 – Jul 2013: Professor in Computer Science (Distributed Computing, 5 year fixed term) at Department of Information and Computer Science, School of Science and Technology, Aalto University. Sep 2004 – Jul 2008: Academy Research Fellow, Academy of Finland. Jan 2003 – Jul 2008: Teaching Researcher, Department of Information and Computer Science, Helsinki University of Technology. (On leave Apr 2003 – Mar 2004 and Sep 2004 – Jul 2008.) Jan 2006 – : Docent (Adjunct Professor) in Model Checking, Department of Information and Computer Science, Helsinki University of Technology. Apr 2003 – Mar 2004 Postdoctoral researcher (Wissenschaftlicher Mitarbeiter), Institute for Formal Methods in Computer Science, Software Security and Reliability Group (Prof. Javier Esparza), University of Stuttgart. Jun 2002 – Dec 2002: Researcher, Laboratory for Theoretical Computer Science, Helsinki University of Technology. Jan 2002 – May 2002: Project Manager, Laboratory for Theoretical Computer Science, Helsinki University of Technology.

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Publications: **h-index** of 26 with 2317 citations (Google Scholar, 28th Nov 2017).

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arXiv preprint `https://arxiv.org/abs/1702.06704`

Schumacher, A., Pireddu, L., Kallio, A., Niemenmaa, M., Korpelainen, E., Zanetti, G., and Heljanko, K.: Scripting for large-scale sequencing based on Hadoop. EMBnet.journal, volume 19.A: 84-85, 2013. Poster Abstract from The Next NGS Challenge Conference: Data Processing and Integration 14-16 May 2013, Valencia, Spain.
`http://journal.embnet.org/index.php/embnetjournal/article/view/628`

Lahtinen, J., Launiainen, T., Heljanko, K., and Ropponen, J.: Model Checking Methodology for Large Systems, Faults and Asynchronous Behaviour - SARANA 2011 work report. VTT Technology 12, VTT Technical Research Centre of Finland, Espoo, 2012.

Niemenmaa, M., Schumacher, A., Heljanko, K., Kallio, A., Klemelä, P., Hupponen, T., and Korpelainen, E.: Hadoop-BAM: A Library for Genomic

Data Processing. In *Proceedings of the 12th Annual Bioinformatics Open Source Conference (BOSC 2011)*, 2011.

Lampinen, J., Liedes, S., Kähkönen, K., Kauttio, J., and Heljanko, K: Interface Specification Methods for Software Components. Technical Report TKK-ICS-R25, Helsinki University of Technology, Department of Information and Computer Science, Espoo, Finland, December 2009, 52p.

Björkman, K. Frits, J., Valkonen, J., Lahtinen, J., Heljanko, K., Niemelä, I., and Hämäläinen, J. J.: Verification of Safety Logic Designs by Model Checking. In *Sixth American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Control, and Human-Machine Interface Technologies NPIC&HMIT*, Knoxville, Tennessee, April 5-9, American Nuclear Society, LaGrande Park, IL, 2009, on CD-ROM.

Valkonen, J., Koskimies, M., Björkman, K., Heljanko, K., Niemelä, I., and Hämäläinen, J. J.: Formal Verification of Safety Automation Logic Designs. In *Automaatio XVIII Seminaari 2009*, 17-18.3.2009, Helsinki, Finnish Society of Automation, 2009.

Björkman, K., Frits, J., Valkonen, J., Heljanko, K., and Niemelä, I.: Model-Based Analysis of a Stepwise Shutdown Logic - MODSAFE 2008 Work Report. VTT Working Papers 115, VTT Technical Research Centre of Finland, Espoo, Finland, Mar 2009, 41 p.

Valkonen, J., Koskimies, M., Pettersson, V., Heljanko, K., Holmberg, J.-E., Niemelä, I., and Hämäläinen, J. J.: Formal Verification of Safety I&C System Designs: Two Nuclear Power Plant Related Applications. In Enlarged Halden Programme Group Meeting - Proceedings of the Man-Technology-Organisation Sessions, page C4.2. Institutt for Energiteknikk, Halden, Norway, May 2008, 11 p.

Valkonen, J., Karanta, I., Koskimies, M., Heljanko, K., Niemelä, I., Sheridan, D., and Bloomfield, R. E.: NPP Safety Automation Systems Analysis - State of the Art. VTT Working Papers 94, VTT Technical Research Centre of Finland, Espoo, Finland, April 2008, 62 p.

Valkonen, J., Petterson, V., Björkman, K., Holmberg, J., Koskimies, M., Heljanko, K., and Niemelä, I.: Model-Based Analysis of an Arc Protection and an Emergency Cooling System - MODSAFE 2007 Working Report. VTT Working Papers 93, VTT Technical Research Centre of Finland, Espoo, Finland, February 2008, 51 p.

Heljanko, K.: Verification Methods Based on Propositional Logic Satisfiability. Abstract in the Abstract collection of Finnish Mathematical Days 2008, Espoo, Finland, Jan 3-4, 1 p.

Dubrovin, J. and Junttila, T., and Heljanko, K.: Symbolic Step Encodings for Object Based Communicating State Machines. Technical Report B24, Laboratory for Theoretical Computer Science, Helsinki University of Technology, Espoo, Finland, December 2007, 25 p.

Rintanen, J., Heljanko, K., and Niemelä, I.: Planning as Satisfiability: Parallel Plans and Algorithms for Plan Search. Technical report 216, Institute of Computer Science at Freiburg University, 2005, 56p.

Heljanko, K. and Ştefănescu, A.: Complexity Results for Checking Distributed Implementability. Technical Report 05/2004, Institute of Formal Methods in Computer Science, University of Stuttgart, October 2004, 37p.

Latvala, T., Biere, A., Heljanko, K., and Junttila, T.: Simple Bounded LTL Model Checking. Research Report A92, Laboratory for Theoretical Computer Science, Helsinki University of Technology, Espoo, Finland, July 2004, 16p.

Rintanen, J., Heljanko, K., and Niemelä, I.: Parallel Encodings of Classical Planning as Satisfiability. Technical Report 198, Institute of Computer Science, Freiburg University, February 2004, 8p.

Heljanko, K., Khomenko, V., and Koutny, M.: Parallelisation of the Petri Net Unfolding Algorithm. Technical Report CS-TR-733, Department of Computing Science, University of Newcastle upon Tyne, June 2001, 14p.

Esparza, J. and Heljanko, K.: Implementing LTL Model Checking with Net Unfoldings, Research Report A68, Laboratory for Theoretical Computer Science, Helsinki University of Technology, Espoo, Finland, May 2001, 29p.

Heljanko, K. and Niemelä, I.: Petri Net Analysis and Nonmonotonic Reasoning. In *Leksa Notes in Computer Science - Festschrift in Honour of Professor Leo Ojala*, Research Report A63, Helsinki Univeristy of Technology, Laboratory for Theoretical Computer Science, October 2000, pp. 7-19.

Esparza, J. and Heljanko, K.: A New Unfolding Approach to LTL Model Checking. Research Report A60, Laboratory for Theoretical Computer Science, Helsinki University of Technology, Espoo, Finland, April 2000, 32p.

Heljanko, K.: Deadlock and Reachability Checking with Finite Complete Prefixes. Research Report A56, Laboratory for Theoretical Computer Science, Helsinki University of Technology, Espoo, Dec 1999, 70p.

Grant for research project "Advanced Parallel Testing and Verification Methods for Distributed Systems", from Academy of Finland, Sep 2014-Aug 2018.

Aalto person in charge for the High Performance Infrastructure Funding of "Finnish Grid and Cloud Infrastructure (FGCI) Stage 2: Enabling data sciences", Computing Infrastructure for Aalto from Academy of Finland, 600 000 Eur External funding, 2018-2019.

Person in charge of project "Data to Intelligence" at Aalto University, a four year data mining project with around 40 Finnish partners from Tekes – the Finnish Funding Agency for Technology and Innovation Digile ICT SHOK programme, Feb 2012-Jun 2016.

Program director and grant holder of Helsinki Institute for Information Technology HIIT research programme "Distributed and Mobile Cloud Systems", Mar 2013-Jun 2016.

Microsoft Mobile Devices India University Relations Research Grant: "Mobile Big Data science Research exploration projects associated with Predictive Data Analytics, Machine Learning powered by mobile Cloud services", 2014-2016.

Subgrant of Aalto University School of Science Energy Program project "Green ICT - Leapfrogging energy efficiency through multidisciplinary system design", Jan 2013-Dec 2014.

Grant for research project "Parallel and Distributed Methods in Verification (PDMV)" led by Keijo Heljanko, from Academy of Finland, Jan 2011-Dec 2014.

Grant for research project "Safety evaluation and reliability analysis of nuclear automation (SARANA)", joint project with VTT Technical Research Centre of Finland, from SAFIR 2014: The Finnish Research Programme on Nuclear Power Plant Safety 2011-2014, Feb 2011-Jan 2015.

Grant for research project "Cloud Software", a joint sub-project with Aalto University Department of Computer Science and Engineering, from Tekes – the Finnish Funding Agency for Technology and Innovation Cloud Software ICT SHOK programme, with 30 Finnish partners, Jan 2010-Dec 2013.

Grant for "Analysis Methods for Big Data" subproject of project "EUROPA – EIT's cloud-based data-intensive computing infrastructure", funded by the EIT ICT Labs Cloud Computing Research Action line, main project led by TU Berlin, Jan-Dec 2012.

Grant for "Benchmarking" subproject of project "Testbeds for Cloud Computing" funded by the EIT ICT Labs, main project led by SICS, Jan-Dec 2011.

Grant for research project "Reduced Certification Costs for Trusted Multicore Platforms (RECOMP)", an ARTEMIS-JU project partly funded by Tekes, with 41 partners from 9 European countries, Apr 2010-Mar 2013.

Grant for research project "Computer Aided Verification Theory and Tools" led by Keijo Heljanko, from Technology Industries of Finland Centennial Foundation, 2007-2009.

Grant for "Outstanding junior research group of Helsinki University of Technology (TKK)" to "Model Checking Research Group" led by Keijo Heljanko for the two year term Aug 2006–Jul 2008. Only three grants were granted at TKK.

Academy of Finland grant for research expenses of the Academy Research Fellow under the title "Testing, Verification, and Synthesis of Distributed Systems" 2009-2010, 2006-2008, and 2005.

Academy of Finland grant for research work abroad, 2003.

PhD Students: Ilari Maarala and Olli Saarikivi.

External PhD Stud.: Ahmed Hussnain (Tieto) and Markku Hinkka (QPR Software).

Thesis Supervisor: Doctoral Thesis: Jussi Lahtinen: *Model Checking Large Nuclear Power Plant Safety System Designs*, Department of Computer Science, Oct 2016.

Doctoral Thesis: Kari Kähkönen: *Automated Systematic Testing Methods for Multithreaded Programs*, Aalto University, Department of Computer Science, Feb 2015. Granted the Aalto Computer Science Department Thesis Award for 2015 (two awards were granted at the Department in 2015).

Doctoral Thesis: Siert Wieringa: *Incremental Satisfiability Solving and its Applications*, Aalto University, Department of Computer Science and Engineering, Mar 2014.

Thesis Instructor: Doctoral Thesis: Misa Keinänen: *Techniques for Solving Boolean Equation Systems*, Helsinki University of Technology, Department of Computer Science and Engineering, Dec 2006.

Doctoral Thesis: Heikki Tauriainen: *Automata and Linear Temporal Logic: Translations with Transition-Based Acceptance*, Helsinki University of Technology, Department of Computer Science and Engineering, Oct 2006.

Doctoral Thesis: Toni Jussila: *On Bounded Model Checking of Asynchronous Systems*, Helsinki University of Technology, Department of Computer Science and Engineering, Oct 2005.

Doctoral Thesis: Timo Latvala: *Automata-Theoretic and Bounded Model Checking for Linear Temporal Logic*, Helsinki University of Technology, Department of Computer Science and Engineering, Aug 2005.

In addition supervisor or instructor for 60+ Master's Theses and 20+ Bachelor's Theses.

Alumni Postdocs: PhD Hernán Ponce de León, currently researcher at Fortiss, Muenchen, Germany.

PhD Khalid Latif, currently Lead Big Data Engineer at Dentsu Aegis Network.

PhD Antti Siirtola, currently Lecturer at University of Oulu, Finland.

D.Sc. (Tech.) André Schumacher, currently Data Scientist at Reaktor.com, Helsinki, Finland.

D.Sc. (Tech.) Jori Dubrovin, currently Model Based Testing Tool Developer at Conformiq Ltd.

D.Sc. (Tech.) Tommi Junttila, currently Docent and University Lecturer at Department of Computer Science, Aalto University.

Thesis Examination: Doctoral Thesis Examination Board Member: Alfons Laarman, *Scalable Multi-Core Model Checking*, University of Twente, The Netherlands, May 2014.

Doctoral Thesis Examination Board Member: Sergio Mover, *Verification of Hybrid Systems using Satisfiability Modulo Theories*, University of Trento, Italy, Mar 2014.

Doctoral Thesis Examination Board Member: John Ardelius, *On the Performance Analysis of Large Scale, Dynamic, Distributed and Parallel Systems*, KTH, Royal Institute of Technology, Stockholm, Sweden, Dec 2013.

Doctoral Thesis External Examiner: César Rodríguez: *Verification Based on Unfoldings of Petri Nets with Read Arcs*, ENS Cachan, France, Dec 2013.

Doctoral Thesis External Examiner: Christian Kern: *Methods for the Diagnosis and Automatic Repair of Software Systems*, Technische Universität München, Germany, Jun 2013.

Doctoral Thesis Opponent: Marko Kääramees: *A Symbolic Approach to Model-based Online Testing*, Tallinn University of Technology, Faculty of Information Technology, Department of Computer Science, Estonia, Nov 2012.

Doctoral Thesis Opponent: Antti Jääskeläinen: *Design, Implementation and Use of a TestModel Library for GUI Testing of Smartphone Applications*, Tampere University of Technology, Department of Software Systems, Jan 2011.

Member of the Doctoral Thesis Examination Committee of Doctoral Thesis: Noomene Ben Henda: *Infinite-state Stochastic and Parameterized Systems*, Uppsala University, Jun 2008.

Doctoral Thesis Opponent: Henri Hansen: *Alternatives to Büchi Automata*, Tampere University of Technology, Department of Information Technology, Oct 2007.

Thesis Reviewer: Doctoral Thesis Pre-examiner: Petr Bauch, *Automating Software Development with Explicit Model Checking*, Masaryk University, Faculty of Informatics, Czech Republic, Jan 2016.

Doctoral Thesis Pre-examiner: César Rodríguez: *Verification Based on Unfoldings of Petri Nets with Read Arcs*, ENS Cachan, France, Dec 2013.

Doctoral Thesis Pre-examiner: Christian Kern: *Methods for the Diagnosis and Automatic Repair of Software Systems.* Technische Universität München, Germany, May 2013.

Doctoral Thesis Pre-examiner: Milan Češka: *Designing Data-Parallel Graph Algorithms for Model Checking.* Masaryk University, Faculty of Informatics, Czech Republic, May 2012.

Doctoral Thesis Pre-examiner: Antti Jääskeläinen: *Design, Implementation and Use of a TestModel Library for GUI Testing of Smartphone Applications.* Tampere University of Technology, Department of Software Systems, Oct 2010.

Doctoral Thesis Pre-examiner: Jukka Suomela: *Optimisation Problems in Wireless Sensor Networks: Local Algorithms and Local Graphs.* University of Helsinki, Department of Computer Science, Apr 2009.

Doctoral Thesis Pre-examiner: Pauli Miettinen: *Matrix Decomposition Methods for Data Mining: Computational Complexity and Algorithms.* University of Helsinki, Department of Computer Science Mar 2009.

Doctoral Thesis Pre-examiner: Henri Hansen: *Alternatives to Büchi Automata*, Tampere University of Technology, Department of Information Technology, Jun 2007.

PC (co-)chair:	ACSD 2012 - 12th International Conference on Application of Concurrency to System Design.
	PDMC 2012 - 11th International Workshop on Parallel and Distributed Methods in verifiCation (co-located with QEST 2012)
	AIPA/SVARM 2012 - Joint Workshop Automation in Proof Assistants / Synthesis, Verification, and Analysis of Rich Models (co-located with ETAPS 2012)
	PDMC 2011 - 10th International Workshop on Parallel and Distributed Methods in verifiCation (co-located with CAV 2011)
Track chair:	FMCAD 2017 Student Forum - Chairman of the Student Forum track held at FMCAD 2017.
	SEAA 2012 - 38th EUROMICRO Conference on Software Engineering and Advanced Applications, Track: Cloud Software (CS).
PC member:	MARS - 3rd Workshop on Models for Formal Analysis of Real Systems, 2018.
	GAM - Graphs as Models Workshop, 2017-2015.
	NWPT - Nordic Workshop on Programming Theory: 2017-2014.

ACSD - International Conference on Application of Concurrency in System Design: 2016-2013, 2011-2007.

FMCAD - International Conference on Formal Methods in Computer-Aided Design: 2016-2013.

TIME - International Symposium on Temporal Representation and Reasoning: 2016-2012, 2009, 2007-2006.

SV-COMP - 5th International Competition on Software Verification: 2016.

AVoCS - International Workshop on Automated Verification of Critical Systems: 2015, 2012.

FOCLASA - International Workshop on Foundations of Coordination Languages and Self Adaptive Systems: 2015, 2013.

SEAA - EUROMICRO Conference on Software Engineering and Advanced Applications, Track: Cloud Software (CS), 2015, 2014, 2013, 2011.

CAV - International Conference on Computer Aided Verification: 2014, 2011.

CONCUR - International Conference on Concurrency Theory: 2014, 2012-2011.

FMICS 2014 - 19th International Workshop on Formal Methods for Industrial Critical Systems.

GRAPHITE - Workshop on Graph Inspection and Traversal Engineering: 2014-2013

MEMICS 2012 - 8th Doctoral Workshop on Mathematical and Engineering Methods in Computer Science.

SOFSEM - Conference on Current Trends in Theory and Practice of Computer Science: 2011, 2009.

PDMC/HiBi 2010 - 9th International Workshop on Parallel and Distributed Methods in Verification (PDMC 2010) joint with 2nd International Workshop on High Performance Computational Systems Biology (HiBi 2010).

PDMC - International Workshop on Parallel and Distributed Methods in Verification: 2009-2008.

Workshop on unfolding and partial order techniques (UFO 2007).

Organizer:	Competition co-chair of the Hardware Model Checking Competition (HWMCC'11, 12, 13, 14, 15 & 17) held in conjunction with FMCAD'11, 12, 13, 15 & 17, and CAV'14.
	Co-organizer of Third International SAT/SMT PhD Summer School 2013, Espoo, Finland, 3-5 Jul 2013, affiliated with SAT 2013.
Invited Tutorials:	Hands-on tutorial on "Satisfiability Modulo Theories (SMT)" at three summer schools, at 3rd and 4th International SAT/SMT PhD Summer School

2013 & 2014, affiliated with SAT 2013 & 2014, and at SC^2 Summer School 2017, (jointly organised with Tommi Junttila and Tomi Janhunen).

Tutorial on "Improved Testing of Multithreaded Programs with Dynamic Symbolic Execution" at the 4th International Halmstad Summer School on Testing, HSST 2014, Halmstad University, Sweden.

Tutorial on "Scalable Cloud Computing". EIT ICT Labs Cloud Computing PhD Summer School 2013, 6th of June 2013 in Espoo, Finland. `http://www.cse.hut.fi/en/studies/summerschool/eit/`

Tutorial on "Scalable Cloud Computing". EIT ICT Labs Cloud Computing PhD Summer School 2012, 5th of June 2012 in Espoo, Finland.

Tutorial on "Scalable batch processing in the cloud" held in European institute of Technology (EIT) ICT Labs affiliated CONTRAIL PhD Summer school 2011 on Cloud and Grid computing, 28th of June 2011 in Hyères-Les-Palmiers, France.
`http://contrail-project.eu/summerschool-2011`

Tutorial on "Scalable batch processing in the cloud". EIT ICT Labs Cloud Computing PhD Summer School 2011, 9th of June 2011 in Espoo, Finland.

Unfolding based Model Checking, half day tutorial in Advanced course on Petri nets 2010 PhD school, Rostock, Germany, 13-24 September 2010.

Bounded Model Checking for Finite-State Systems, half day tutorial at Quantitative Model Checking PhD School, Copenhagen, 2-5 March 2010, organized by the European Network of Excellence in Embedded Systems Design (ARTIST Design) and the Danish VKR Center of Excellence (MT-LAB).

Advanced Full Day Tutorial on Bounded Model Checking at the joint conference ACSD 2006/ATPN 2006 (jointly organised with Tommi Junttila), June 2006.

Invited Talks: Big Data Platforms for Artificial Intelligence. Talk at Workshop on Many Faces of Artifical Intelligence. Matine, the Finnish Scientific Advisory Board for Defence, May 2017.

Helsinki Institute for Information Technology HIIT. Talk at the first networking meeting of all National Centers of Excellence (CoEs) dedicated to Research in Big Data and Data Science in Europe, Graz, Austria, Oct 2016.

EUDAT service and experiences from the Aalto Data Repository Pilot. Talk at the OPENAIRE Workshop on Infrastructures and networking for Open Science, Aug 2016.

Big Data Research and Curriculum at Aalto. Talk at Big Data Forum Finlandin (BiFF) opening session, Oct 2015.

Big Data ja laskentatehtaat (Big Data and Warehouse Scale Computing). Finnish days of Technology, Tampere, Finland, Oct 2015.

Big Data Platforms for Next Generation Sequencing Data Processing. Talk at University of Helsinki, Finland, Mar 2015.

Big Data Platforms for Next Generation Sequencing Data Processing. Talk at Uppsala Genomics today and tomorrow Workshop, Uppsala, Sweden, Mar 2015.

Processing NGS Data with Hadoop-BAM and SeqPig, Biobank Cloud NGS Hadoop Workshop at KTH/SICS, Stockholm, Sweden, Feb 2015.

Big Data Platforms for Next Generation Sequencing Data Processing. Talk at Uppnex Workshop on e-Infrastructures for Massively Parallel Sequencing, Uppsala, Sweden, Jan 2015.

Distributed Processing of Next Generation Sequencing Data using Hadoop. Talk at the BioLedge Workshop, Espoo, Finland, Sep 2014.

Using Unfoldings in Automated Testing of Multithreaded Programs. Talk at Fondazioni Bruno Kessler, Trento, Italy, Mar 2014.

Advanced Model Checking Methods and Safety Critical Systems. Talk at Dutch Model Checking Days, Twente, Netherlands, May 2014.

Hadoop-BAM and SeqPig: Exploiting Big Data Platforms for NGS Data Processing. FIMM-HIIT Minisymposium, FIMM, Helsinki, Finland, August 2014

Virtuaalipilvet tietotekniikassa: mitä pilvipalvelu tarkoittaa? (Virtual Clouds in Computer Science: What are Cloud Services?) Finnish days of Technology, Espoo, Finland, Jan 2014.

Using Unfoldings in Automated Testing of Multithreaded Programs. Nordic Workshop on Programming Theory, Tallinn, Estonia, Nov 2013.

Using Unfoldings in Automated Testing of Multithreaded Programs. Talk at LMU and TUM joint PUMA PhD school at LMU, Munich, Germany, 28th of Jun 2013.

Cloud Computing Solutions for Next Generation Sequencing Data. Talk in EU COST Action BM1006: Next Generation Sequencing Data Analysis Network scientific meeting in Brussels, Belgium, Nov 2011.

Genome Data Preprocessing with MapReduce. Talk at Dagstuhl Seminar 11321 on Information Management in the Cloud, Germany, Aug 2011.

The MapReduce Cloud Computing Framework and Genome Data Preprocessing. Invited talk at Finnish Meteorological Institute, Helsinki, Jan 2011.

Approaches to Distributing Bounded Model Checking (Extended Abstract). Talk at Dagstuhl Seminar 08332 on Distributed Verification and Grid Computing, Germany, Aug 2008.

Verification Methods based on Propositional Logic Satisfiability. Invited talk at University of Helsinki, Mar 2008.

Bounded Model Checking. Invited talk at Lappeenranta University of Technology, Finland, Mar 2008.

Tietokoneavusteinen ohjelmistojen laadunvarmistus (Computer Aided Software Quality Assurance). Invited talk at Teknillisten Tieteiden Akatemia (Academy for Technical Sciences), Helsinki, Finland, Apr 2007.

Verification with Bounded Model Checking. Invited talk at University of Århus, Denmark, Apr 2007.

Bounded Model Checking (BMC). Invited talk at University of Newcastle, UK, Oct 2006.

Software Reliability and Model Checking. Dependability of all-IP networks, a multi-disciplinary workshop. Invited talk at VTT Technical Research Centre of Finland, May 2006.

Reviewing: SNSF, Swiss National Science Foundation, Evaluator of research projects in computer science, 2016, 2009.

ARRS, the Slovenian Research Agency, Evaluator of research projects in computer science: 2016, 2015, 2013, 2011, 2009, 2008.

Austrian Science Fund (FWF), reviewer for START programme research project, 2013, reviewer of K-Project research project, 2012.

Science Foundation Ireland (SFI), Reviewer for President of Ireland Young Investigator Award Application, 2012.

EU FP7, DG INFSO, Embedded Systems & Control and FET, Independent expert reviewer for a research project in 2012, two research projects in 2010&2011, and a research project in 2009.

DFG, German Research Foundation, Evaluator of research project in computer science, 2010.

RPF, the Research Promotion Foundation of Cyprus, Evaluator of a research project in computer science, 2009.

ARRS, the Slovenian Research Agency, Member of the evaluation panel for research programmes in computer science, 2008.

NWO, the Netherlands Organization for Scientific Research, review of a grant proposal, 2002.

DIMLSC, Evaluator of research project for DIM (Domaine d'Intérêt Majeur) LSC (Logiciel et Systèmes Complexes) of the Ile-de-France Region, France, 2011.

WWTF, the Wiener Wissenschafts-, Forschungs- und Technologiefonds (Vienna Science and Technology Fund), review of a grant proposal, 2008.

Transactions on Petri Nets and Other Models of Concurrency (ToPNoC), 2017.

Bioinformatics, 2017, 2016, 2014.

Information & Computation, 2016, 2011.

Journal of Systems and Software (JSS), 2016, 2015, 2013, 2004.

Information Processing Letters (IPL), 2015, 2007, 2005.

ACM Transactions on Embedded Computing Systems (TECS), 2015, 2013

Journal on Satisfiability, Boolean Modeling and Computation (JSAT), 2015

Acta Informatica, 2015, 2014, 2011, 2008.

IEEE Transactions on Software Engineering, 2015.

Theoretical Computer Science, 2014, 2012, 2010–2009.

Science of Computer Programming (SCICO), 2014–2012, 2010–2009

ACM Transactions on Computational Logic, 2014.

ACM Transactions on Design Automation of Electronic Systems, 2013.

Computer Science Review, 2013

Journal of Logic and Computation (JLC), 2012

Information and Software Technology, 2012

Logical Methods in Computer Science, 2012

ACM Transactions on Design Automation of Electronic Systems, 2012.

International Journal on Software Tools for Technology Transfer (STTT), 2011–2010.

IET Computers & Digital Techniques, 2011.

Transactions on Petri Nets and Other Models of Concurrency (ToPNoC), 2011, 2008–2007.

Fundamenta Informaticae, 2009, 2003.

Software Testing, Verification and Reliability, 2009.

IEEE Transactions on Automatic Control, 2008–2005.

IEEE Transactions on Computers, 2007.

Nordic Journal of Computing, 2006–2005.

Formal Methods in System Design, 2005.

Formal Methods Letters (FML), 2005.

International Journal of Foundations of Computer Science, 2003.

Software and System Modeling (SoSyM) Journal, 2003–2002.

The Computer Journal, 2002–2001.

In addition a reviewer for 60+ international conferences and workshops.

Evaluation: Statement for a Professorship in Software Engineering, Tallinn University of Technology, Estonia, 2013.

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Statements:	Docentship (Adjunct Professorship) in Computer Science statement for Department of Mathematics, Tampere University of Technology, Nov 2016.
	Docentship (Adjunct Professorship) in Computer Science statement for Faculty of Science, University of Helsinki, Feb 2012.
	Docentship (Adjunct Professorship) in Computer Science statement for Department of Information Technologies, Åbo Akademi University, May 2011.
Positions of trust:	Member of the advisory group for Finnish national High Performance Computing, Ministry of Education and Culture, Mar 2016–
	Member of the CSC - IT Center for Science evaluation panel of the national High Performance Computing Grand Challenges proposals, 2016–
	Member of the Master's Degree Programme Committee for Computer, Communication and Information Sciences, Aalto University, Apr 2016–
	Professor in charge at Aalto for the EIT Digital International Master's Program "Cloud Computing and Services", 2016–
	Vice Member of the Doctoral Program Committee of School of Science, Aalto University, 2014–2016.
	Professor in charge of the study track "Software Systems and Technologies" inside the Aalto Computer Science major of the Computer, Communication and Information Sciences Master's Degree Program, 2015–
	Steering group member of Helsinki Doctoral Education Network in Information and Communications Technology (HICT), 2015–
	Member of the steering group of the Aalto Science Institute, Jan 2015–Jul 2016.
	Chairman of the Steering Group of Computing Infrastructure for Computational Science at Aalto University (Science-IT project, 500+ computer HPC cluster) Aug 2013–, Vice chairman 2012–Jul 2013, Member 2009–2011.
	Helsinki Institute for Information Technology HIIT: Steering group member and Program Director for Research Programme "Distributed and Mobile Clouds", 2013–2016. One of the PIs for the new "Foundations of Computational Health" program, 2016–
	Member of th Aalto Research and Innovation Services ICT-working team, RIS IT, May 2015–
	Finnish Society for Computer Science, Member of the Board and Treasurer, 2013–2015. Evaluation panel member for the best CS Master's Theses in Finland for years 2013, 2014, and 2015.
	Helsinki Graduate School in Computer Science and Engineering (HeCSE). Management Group Member, 2011–2015. Board Member, 2006–2015.
	Member of the Working Group of Aalto Science Energy Initiative (ESCI), School of Science, Aalto University, 2012-2016.

Representative of the Aalto School of Science in the Steering Group of the Aalto-1 student satellite project at Aalto University, Member of the Science Team of Aalto-1, 2011–2016.

European Science Foundation, vice work group leader of Working Group 3: Analysis of Executable Rich Models; vice member of the Management Committee of the COST Action IC0901: Rich-Model Toolkit - An Infrastructure for Reliable Computer Systems, 2009–2013; Finnish representative in Games for Design and Verification (GAMES) Research Network Steering Committee Meeting, Aug 2011.

Member of the ICT Infrastructure Committee, School of Science, Aalto University, 2011–2013

Chairman of the Computer System Administration Support Group of Department of Information and Computer Science, 2009–Jul 2013.

Oltermanni (Master of the Guild), Tietokilta ry (TiK), (Guild for Computer Science Students at Aalto University), 2011–2015.

Research visits:	One year postdoc position at University of Stuttgart (see Academic Career).
	Technische Universität München, Insititut für Informatik, Lehrstuhl VII (Theoretical Computer Science and Foundations of AI), Prof. W. Brauer and Prof. J. Esparza, 1999-2000 (8 months).
Hosted visitors:	Prof. Dr. rer. nat. Roland Meyer from TU Kaiserslautern as Aalto Visiting Professor, approx. six months total visit in 2016.
Research interests:	Distributed computing, big data, data science, cloud computing, distributed systems design, computer aided verification tools and algorithms, model checking, testing, parallel algorithm design, artificial intelligence
References:	Prof. Ilkka Niemelä President of Aalto University and Professor of Computer Science Aalto University PO Box 17800 FI-00076 Aalto, Finland Email: ilkka.niemela@aalto.fi Secretary phone: +358 40 542 1546
	Prof. Javier Esparza Technische Universität München Institut für Informatik (I7) Boltzmannstraße 3 D-85748 Garching bei München, Germany Email: esparza@in.tum.de Phone: +49 89 289 17204