

Lauri Malmi
List of publications
8.12.2015

Summary

- 29 international refereed journal papers, 68 international refereed conference papers, 40 other scientific publications, 1 text book.
- Google scholar citations 2582, H-index 24 (1476 and 17 since 2010).
- 10 most important articles marked as bold

A1. *Articles in international scientific refereed journals*

1. L. Malmi. A New Method for Updating and Rebalancing Tree-Type Main Memory Dictionaries. *Nordic Journal of Computing*, vol 3 no 2, 1996, pp. 111-130.
2. R. Vilmi, L. Malmi. Learning English by Creating, Writing and Playing WWW Adventure Games. *Educational Technology Research & Development*, vol 44 no 3, 1996, pp. 109-118.
3. A. Korhonen, L. Malmi, J. Nikander, P. Tenhunen, Interaction and Feedback in Automatically Assessed Algorithm Simulation Exercises. *Journal of Information Technology Education*, vol. 2, 2003, pp. 241-255.
4. T. Naps, G. Rössling, et. al. Exploring the Role of Visualization and Engagement in Computer Science Education. Report of the Working Group on "Improving the Educational Impact of Algorithm Visualization", ITICSE'2002. *ACM SIGCSE Bulletin*, vol. 35 no 2, 2003, pp. 131-152.
5. T. Naps, G. Rössling, et. al.: Evaluating the Educational Impact of Visualization. Report of the ITICSE'2003 working group on "Evaluating the Educational Impact of Visualization". *SIGCSE Bulletin*, vol 35 no 4, 2003, pp. 124-136.
6. L. Malmi, V. Karavirta, A. Korhonen, J. Nikander, O. Seppälä, P. Silvasti: Visual Algorithm Simulation Exercise System with Automatic Assessment: TRAKLA2. *Informatics in Education*, vol 3 no 2, 2004, pp. 267-288.
7. M-J. Laakso, T. Salakoski, L. Grandell, X. Qiu, A. Korhonen, and L. Malmi, Multi-Perspective Study of Novice Learners Adopting the Visual Algorithm Simulation Exercise System TRAKLA2. *Informatics in Education*, vol 4 no 1, 2005, pp. 49-68.
8. S. Surakka, L. Malmi, Delphi study of the cognitive skills of experienced software developers. *Informatics in Education*, vol 4 no 1, 2005, pp. 123-142.
9. P. Kinnunen, L. Malmi, Problems in Problem-Based Learning - Experiences, Analysis and Lessons Learned on an Introductory Programming Course. *Informatics in Education*, vol 4 no 2, 2005, pp. 193-214.
10. S. Surakka, L. Malmi, Need Assessment of Computer Science and Engineering Graduates. *Computer Science Education*, vol 15 no 2, 2005, pp. 103-121.
11. E. Nuutila, S. Törmä, L. Malmi, PBL and Computer Programming - The Seven Steps Method with Adaptations. *Computer Science Education*, vol 15 no 2, 2005, pp. 123-142.
12. A. Pears, S. Seidman, C. Eney, P. Kinnunen, L. Malmi, Constructing a Core Literature for Computing Education Research. Report of the ITICSE 2005 working group "A Seminal Literature for Computer Science Education Research". *SIGCSE Bulletin*, vol 37 no 4, pp. 152-161, 2005.
13. L. Malmi, V. Karavirta, A. Korhonen, J. Nikander, Experiences on Automatically Assessed Algorithm Simulation Exercises with Different Resubmission Policies. *ACM Journal of Educational Resources in Computing*, vol 5 no 3, Article 7, 2005.
14. V. Karavirta, A. Korhonen, L. Malmi, On the use of resubmissions in Automatic Assessment systems. *Computer Science Education*, vol 16 no 3, 2006, pp. 229-240.

15. O. Seppälä, L. Malmi, A. Korhonen, Observations on Student Misconceptions - A Case Study of the Build-Heap Algorithm. *Computer Science Education*, vol 16 no 3, 2006, pp. 241-255.
 16. M. Zhou, A. Korhonen, L. Malmi, I. Kosonen, T. Luttinen, Integration of GIS-T with Real-time Traffic Simulation System: An Application Framework. *Transportation Research Record: Journal of the Transportation Research Board*. vol. 1972, 2007. pp. 78-84.
 17. A. Pears, S. Seidman, L. Malmi, L. Mannila, E. Adams, J. Bennedsen, M. Devlin, J. Paterson, A Survey of Literature on the Teaching of Introductory Programming, *ACM SIGCSE Bulletin*, vol 39 no 4, 2007, pp. 204-223.
 18. M-J. Laakso, L. Malmi, A. Korhonen, Using Roles of Variables to Enhance Novice's Debugging Work. *Issues in Informing Science and Information Technology*, vol 5, 2008, pp. 281-295.
 19. G. Rößling (co-chair), L. Malmi (co-chair), M. Clancy, M. Joy, A. Kerren, A. Korhonen, A. Moreno, T. Naps, R. Oeschle, A. Radenski, R. Ross, J. Angel Velazquez-Iturbide, Enhancing Learning Management Systems to Better Support Computer Science Education. *ACM SIGCSE Bulletin*, vol 40, no 4, 2008. pp. 142-166.
 20. A. Pears, A. Berglund, A. Eckerdal, P. East, P. Kinnunen, L. Malmi, R. McCartney, J-E. Moström, L. Murphy, M. Ratcliffe, C. Schulte, B. Simon, I. Stamouli, L. Thomas, Learning Computer Science: Perceptions, Actions and Roles. *European Journal of Engineering Education*, vol 34 no 4. pp. 327-338.
 21. A. Pears, A., L. Malmi, 2009. Values and Objectives in Computing Education Research. *ACM Transactions on Computing Education*, vol 9, 3 (Sep. 2009), 1-6. (preface to special issue on selected papers from Koli Calling 2008 conference).
 22. V. Karavirta, A. Korhonen, L. Malmi, T. Naps, A Comprehensive Taxonomy of Algorithm Animation Languages. *Journal of Visual Languages and Computing*, vol. 21, nro 1, 2010, p. 1-22.
 23. A. Taherkhani, A. Korhonen, L. Malmi, Recognizing Algorithms Using Language Constructs, Software Metrics and Roles of Variables: An Experiment with Sorting Algorithms. *Computer Journal*, 2011. vol. 54, nro 7, pp. 1049-1066.
 24. A. Taherkhani, A. Korhonen, L. Malmi, Categorizing Variations of Student-Implemented Sorting Algorithms. *Computer Science Education*, 2012, vol 22 no 2, pp. 109-138.
 25. J. Sorva, J. Lönnberg, L. Malmi, Students' ways of experiencing visual program simulation. *Computer Science Education*, 2013 (<http://dx.doi.org/10.1080/08993408.2013.807962>)
 26. A. Taherkhani, L. Malmi, Beacon- and Schema-Based Method for Recognizing Algorithms from Students' Source Code. *Journal of Educational Data Mining*, vol 5 no 2, 2013, pp. 69-101.
 27. J. Sorva, V. Karavirta, L. Malmi, A Review of Generic Program Visualization Systems for Introductory Programming Education. *ACM Transactions of Computing Education*, vol 13 no 4, article 15. 2013.
 28. T. Auvinen, L. Hakulinen, L. Malmi, Increasing Students' Awareness of their Behavior in Online Learning Environments with Visualizations and Achievement Badges. *IEEE Transactions in Learning Technologies*, vol 8 no 3, 2015, 261-273.
 29. P. Kinnunen, J. Lampiselkä, L. Malmi, V. Meisalo, Pedagogical Foci in Nordic Physics and Chemistry Education Research Papers. *Accepted for publication* in Nordina.
- L. Malmi, T. Adawi, R. Curmi, E. De Graaff, G. Duffy, C. Kautz, P. Kinnunen, B. Williams, A Methodological Analysis of recent Engineering Education Research papers in European Journal of Engineering Education. *Submitted for publication* in European Journal of Engineering Education
 - A. Al Lily, J. Foland, D. Stoloff, ..., L. Malmi, ..., Academic Domains as Political Battlegrounds - A Global Enquiry by 100 Academics in the Fields of Education and Technology. *Submitted for publication* in Educational Researcher.

- K. Edström, P. Andersson, J. Bernhard, A. Kolmos, and L. Malmi, A bottom-up strategy for establishment of EER in three Nordic countries – the role of networks. *Submitted for publication* in European Journal of Engineering Education

A2. *Articles in international edited volumes and peer-reviewed conference publications*

1. L. Malmi: Efficient Rebalancing of Tree-Type Main Memory Dictionaries. *Proceedings of 5th Australasian Database Conference*, Global Publication Services, 1993, pp. 227-246.
2. L. Malmi: CENVIRON - An Environment for Teaching and Learning C Language. *Proceedings of CLCE'94, Complex Learning in Computer Environment*, University of Joensuu, Finland, 1994, pp. 87-90.
3. A. Eerola, L. Malmi: KELVIN - A System for Analysing and Teaching C Programming Style. *Proceedings of CLCE'94, Complex Learning in Computer Environment*, University of Joensuu, Finland, 1994, pp. 112-117.
4. K. Oksanen, L. Malmi. Memory Reference Locality and Periodic Relocation in Main Memory Search Trees, *Proceedings of the 5th Hellenic Conference on Informatics*, Athens, Greece, 1995, pp. 679-687.
5. L. Malmi, E. Soisalon-Soininen, Group Updates for Relaxed Height-Balanced Trees. *Proceedings of PODS'99, Principles of Database Systems*, 1999, pp. 358-367.
6. A. Korhonen, L. Malmi: Algorithm Simulation with Automatic Assessment. *Proceedings of ITICSE'2000, Innovation and Technology in Computer Science Education*, 2000, pp. 160-163.
7. A. Korhonen, L. Malmi, Design Pattern for Algorithm Animation and Simulation, *Proceedings of the First Program Visualization Workshop*, International Proceedings Series #1, University of Joensuu, 2001, pp. 89-100.
8. R. Saikkonen, L. Malmi, A. Korhonen, Fully Automatic Assessment of Programming Exercises. *Proceedings of ITICSE'2001, Innovation and Technology in Computer Science Education*, 2001, pp. 133-136.
9. A. Korhonen, L. Malmi. Matrix - Concept Animation and Algorithm Simulation System. *Proceedings of AVI'2002, Advanced Visual Interfaces*, 2002, p. 109-114.
10. A. Korhonen, L. Malmi, P. Myllyselkä, P. Scheinin. Does It Make A Difference If the Students Exercise on the Web Or in the Class Room? *Proceedings of ITICSE'2002, Innovation and Technology in Computer Science Education*, 2002, pp. 121-124.
11. L. Malmi, A. Korhonen, R. Saikkonen. Experiences in Automatic Assessment on Mass Courses and Issues for Designing Virtual Courses}. *Proceedings of ITICSE'2002, Innovation and Technology in Computer Science Education*, 2002, pp. 55-59.
12. A. Korhonen, L. Malmi, J. Nikander, and P. Silvasti. Algorithm Simulation -- A Novel Way to Specify Algorithm Animations. *Proceedings of the Second Program Visualization Workshop*, Denmark. Report, DAIMI PB - 547, Department of Computer Science, University of Aarhus, Denmark, 2002, pp. 28-36.
13. A. Korhonen, L. Malmi, Internet Based Training of Data Structures and Algorithms at University Education. In: J. Bobry, A. Eteläpelto (Eds.): *Collaboration and Learning in Virtual Environments*. Ebook available in URL: <http://selene.lib.jyu.fi:8080/julpu/9513914208.pdf>. University of Jyväskylä, Finland, 2003, pp. 137-146.
14. P. Silvasti, L. Malmi, P. Torvinen: Collecting statistical data of the usage of a web-based educational software. *Proceedings of IASTED International Conference on Web-based Education*, Austria, 2004, pp. 107--110.

15. J. Lönnberg, A. Korhonen, L. Malmi: MVT - A system for visual testing of software. Jan Lönnberg, *Proceedings of the Working Conference on Advanced Visual Interfaces (AVI'04)*, ACM, 2004, pp. 385-388.
16. J. Naukkarinen, L. Malmi, Faculty Development in Engineering Education in Finland. In: A. Kolmos, O. Vinther, P. Andersson, L. Malmi, M. Fuglem (Eds.) *Faculty Development in Nordic Engineering Education*. Aalborg University Press, Denmark, 2004. pp. 97-110.
17. P. Andersson, L. Malmi, Proposing Nordic Excellent Teaching Practice, NETP. In: A. Kolmos, O. Vinther, P. Andersson, L. Malmi, M. Fuglem (Eds.) *Faculty Development in Nordic Engineering Education*. Aalborg University Press, Denmark, 2004. pp. 89-96.
18. V. Karavirta, A. Korhonen, L. Malmi, K. Stålnacke, MatrixPRO - A Tool for Demonstrating Data Structures and Algorithms Ex Tempore. *Proceedings of Third Program Visualization Workshop*. Research Report CS-RR-407, Department of Computer Science, The University of Warwick, UK, 2004. pp. 26-33.
19. A. Korhonen, L. Malmi, Taxonomy of Visual Algorithm Simulation Exercises. *Proceedings of Third Program Visualization Workshop*. Research Report CS-RR-407, Department of Computer Science, The University of Warwick, UK, 2004. pp. 118-125.
20. L. Malmi, A. Korhonen, Automatic Feedback and Resubmissions as Learning Aid. *Proceedings of ICALT'2004, 4th IEEE International conference on Advanced Learning Technologies*, 2004, pp. 186-190.
21. P. Kinnunen, L. Malmi, Analysing Discussion in Problem-Based Learning Group in Basic Programming Course. *Proceedings of Fourth Finnish / Baltic Sea Conference of Computer Science Education*, Report TKO-A42/04, Laboratory of Information Processing Science, Helsinki University of Technology, Finland, 2004, pp. 97-100.
22. S. Surakka and L. Malmi, Cognitive skills of experienced software developer: Delphi study. *Proceedings of Fourth Finnish / Baltic Sea Conference of Computer Science Education*, Report TKO-A42/04, Laboratory of Information Processing Science, Helsinki University of Technology, Finland, 2004, pp. 37-46.
23. M. Laakso, T. Salakoski, A. Korhonen, L. Malmi, Case study: Introducing WWW-based Exercise System TRAKLA2 in Course of Algorithms and Data Structures at University of Turku. *Proceedings of Fourth Finnish / Baltic Sea Conference of Computer Science Education*, Report TKO-A42/04, Laboratory of Information Processing Science, Helsinki University of Technology, Finland, 2004, pp. 28-36.
24. P. Kinnunen, L. Malmi, Do Students Work Efficiently in a Group? - Problem-Based Learning Groups in Basic Programming Course. *Proceedings of Fourth Finnish / Baltic Sea Conference of Computer Science Education*, Report TKO-A42/04, Laboratory of Information Processing Science, Helsinki University of Technology, Finland, 2004, pp. 57-66.
25. J. Sorva, L. Malmi, An Object Testing Tool For CS1. *Ninth Workshop on Pedagogies and Tools for the Teaching and Learning of Object Oriented Concepts*, ECOOP, 2005. <http://www.cs.umu.se/~jubo/Meetings/ECOOP05/Submissions>
26. A. Pears, S. Seidman, C. Eney, P. Kinnunen, L. Malmi, Maintaining a Core Literature of Computing Education Research. *Proceedings of Koli Calling 2005 - Fifth Koli Calling Conference of Computer Science Education*, TUCS General Publication No 41, Turku Centre for Computer Science, 2006, pp.170-173.
27. V. Karavirta, A. Korhonen, L. Malmi, Different Learners Need Different Resubmission Policies in Automatic Assessment Systems. *Proceedings of Koli Calling 2005 - Fifth Koli Calling Conference of Computer Science Education*, TUCS General Publication No 41, Turku Centre for Computer Science, 2006, pp. 95-102
28. O. Seppälä, L. Malmi, A. Korhonen, Observations on student errors in algorithm simulation exercises. *Proceedings of Koli Calling 2005 - Fifth Koli Calling Conference of Computer Science*

- Education*, TUCS General Publication No 41, Turku Centre for Computer Science, 2006, pp. 81-86.
29. M. Rontu, A. Korhonen, L. Malmi, System for Enhanced Exploration And Querying. *Proceedings of AVI 2006, Advanced Visual Interfaces*, Venice, Italy, 2006. pp. 508-511.
 30. V. Karavirta, A. Korhonen, L. Malmi: Taxonomy of Algorithm Animation Languages. *Proceedings of SoftVis 2006 – ACM Symposium of Software Visualization*, 2006, pp. 77-85.
 31. P. Kinnunen, L. Malmi: Why Students Drop Out CS1 Course? *Proceedings of ICER 2006. International Conference on Computing Education Research*, ACM, 2006, pp. 97-108.
 32. M. Zhou, Ari Korhonen, L. Malmi, I. Kosonen, T. Luttinen, Integration of GIS-T with Real-time Traffic Simulation System: An Application Framework. *Proceedings of the 86th Traffic engineering Board*, Washington, USA, 2006.
 33. J. Sorva, Juha, L. Malmi, Incorrect Understandings and Phenomenography. *First Nordic Workshop on Phenomenography in Computing Education Research*, NoPhICER. Uppsala 2007.
 34. M. Zhou, I. Kosonen, L. Malmi, Towards more efficient traffic information services by integrating real-time traffic simulation system, *The 6th European Congress on ITS*, Aalborg, Denmark, 18th - 20th of June 2007.
 35. M. Zhou, L. Malmi, A. Korhonen, I. Kosonen, T. Luttinen, Visualization on Real-time Traffic Simulation Data Stream. *Proceedings of 14th World Congress on Intelligent Transport Systems*, Beijing, 2007.
 36. L. Malmi, A. Korhonen, Active Learning and Examination Methods in a Data Structures and Algorithms Course. In: M. Caspersen, J. Bennedsen, M. Kölling (Eds.), *Reflections on Teaching Programming*, Springer, 2008. pp. 210-227.
 37. E. Nuutila, S. Törmä, P. Kinnunen, L. Malmi, Learning Programming with the PBL Method - Experiences on PBL Cases and Tutoring. In: M. Caspersen, J. Bennedsen, M. Kölling (Eds.), *Reflections on Teaching Programming*, Lecture Notes in Computer Science 4821, Springer, 2008. pp. 47-67.
 38. A. Berglund, P. Kinnunen, L. Malmi, A doctoral course in research methods in computing education research - How should we teach it? *Proceedings of Koli Calling - 7th Baltic Sea Conference on Computing Education Research*. CRPIT, vol 88, 2008. pp. 175-178.
 39. A. Pears, A. Berglund, A. Eckerdal, P. East, P. Kinnunen, L. Malmi, R. McCartney, J-E. Moström, L. Murphy, M. Ratcliffe, C. Schulte, B. Simon, I. Stamouli, L. Thomas, What's the Problem? Teachers' Experience of Student Learning Successes and Failures. *Proceedings of Koli Calling - 7th Baltic Sea Conference on Computing Education Research*. CRPIT, vol 88, 2008. pp. 207-211.
 40. P. Kinnunen, L. Malmi, CS Minors in a CS1 Course. *Proceedings of ICER 2008, International Computing Education Research Workshop*, ACM, 2008, pp. 79-90.
 41. A. Taherkhani, L. Malmi, A. Korhonen. Algorithm Recognition by Static Analysis and Its Application in Students' Submissions Assessment, *Proceedings of 8th Koli Calling – International Conference on Computing Education Research*. Uppsala University, 2009. pp. 88-91.
 42. J. Lönnberg, A. Berglund, L. Malmi. Helping Students Debug Concurrent Programs, *Proceedings of 8th Koli Calling – International Conference on Computing Education Research*. Uppsala University, 2009. pp. 76-79.
 43. J. Lönnberg, A. Berglund, L. Malmi, How Students Develop Concurrent Programs. *Proceedings of ACE'2009, Australasian Computing Education conference*, 2009. pp. 129-138.
 44. A. Taherkhani, A. Korhonen, L. Malmi, Using Roles of Variables in Algorithm Recognition, *Proceedings of 9th Koli Calling – International Conference on Computing Education Research*, 2010.

45. J. Helminen, L. Malmi, A. Korhonen, Quick Introduction to Programming with an Integrated Code Editor, Automatic Assessment and Visual Debugging Tool - Work in Progress. *Proceedings of 9th Koli Calling – International Conference on Computing Education Research*, 2010, pp. 59-62.
46. L. Malmi, J. Sheard, Simon, R. Bednarik, J. Helminen, A. Korhonen, N. Myller, J. Sorva, A. Taherkhani, Characterizing research in computing education: a preliminary analysis of the literature. *Proceedings of the Sixth International Workshop on Computing Education Research (ICER '10)*. 2010. ACM, New York, NY, USA. 3-12.
47. P. Kinnunen, V. Meisalo, L. Malmi, Have we missed something?: identifying missing types of research in computing education. *Proceedings of the Sixth international workshop on Computing Education Research (ICER '10)*. 2010. ACM, New York, NY, USA. 13-22.
48. J. Helminen, L. Malmi: Jype - a program visualization and programming exercise tool for Python. *Proceedings of the 5th international symposium on Software visualization (SOFTVIS '10)*. 2010. ACM, New York, NY, USA. 153-162.
49. L. Malmi, T. Salakoski. 2010. Reflections on Koli Calling Conference: emergence of the Koli spirit. In *Proceedings of the 10th Koli Calling International Conference on Computing Education Research (Koli Calling '10)*. 2010. ACM, New York, NY, USA, 128-128.
50. J. Lönnberg, M. Ben-Ari, L. Malmi, Visualising concurrent programs with dynamic dependence graphs. *Proceedings of the 6th IEEE International Workshop on Visualizing Software for Understanding and Analysis (VISSOFT 2011)*, Williamsburg, Virginia, September 29-30, 2011. Pp. 1-4. IEEE.
51. J. Lönnberg, M. Ben-Ari, L. Malmi, Java replay for dependence-based debugging. *Proceedings of the Workshop on Parallel and Distributed Systems: Testing, Analysis, and Debugging (PADTAD - IX)*, Toronto, Canada, July 17, 2011. New York, NY 2011, ACM, pp. 15-25.
52. J. Lönnberg, L. Malmi, M. Ben-Ari, Evaluating a Visualisation of the Execution of a Concurrent Program. *Proceedings of the 11th Koli Calling International Conference on Computing Education Research (Koli Calling 2011)*. 2011, ACM, 39-48.
53. J. Helminen, P. Ihantola, V. Karavirta, L. Malmi, How Do Students Solve Parsons Programming Problems?: -- An Analysis of Interaction Traces. *Proceedings of 8th International Computing Education Research Workshop*, Auckland, New Zealand, September, 2012. ACM, 119-126.
54. A-K. Högfeldt, A. Cornell, M. Cronhjort, A. Jerbrant, R. Lyng, R. Kantola, L. Malmi, U. Lundqvist, J. Malmqvist, P. Hussmann, J. Villadsen, H. Brattebø, T. Torvatn, Program leadership from a Nordic perspective – managing education development. *Proceedings of 2012 International CDIO Conference*.
55. A. Taherkhani, A. Korhonen, L. Malmi, Automatic Recognition of Students' Sorting Algorithm Implementations in a Data Structures and Algorithms Course. *Proceedings of Koli Calling 2012, International Conference on Computing Education Research*, pp. 83-92.
56. J. Lönnberg, L. Malmi, Back to School – How Professional Software Developers Develop and Test Software in an Educational Context. *Proceedings of Koli Calling 2012, International Conference on Computing Education Research*, pp. 47-56.
57. L. Malmi, E. De Graaf, T. Adawi, R. Curmi, G. Duffy, C. Kautz, P. Kinnunen, B. Williams, Developing a Methodological Taxonomy of EER papers. *Proceedings of 40th SEFI Annual Conference 2012*, Tessaaloniki, Greece, 23-26 September, 2012.
58. A.-K. Högfeldt, E. Strömberg, A. Jerbrant, A. Berglund, P. Hussmann, J. Villadsen, P. Kinnunen, L. Malmi, J. Malmqvist, B. Baggerud, Program leadership from a Nordic perspective – Program leaders' power to influence their program. In: *Proceedings of CDIO 2013 conference*.

59. L. Malmi, T. Adawi, R. Curmi, E. De Graaff, G. Duffy, C. Kautz, P. Kinnunen, B. Williams, Methodological Analysis of SEFI EER papers. In: Proceedings of SEFI 2013 conference, paper 87.
60. P. Kinnunen, L. Malmi, Pedagogical Focus of Recent Engineering Education Research Papers. In: Proceedings of SEFI 2013 conference, paper 78.
61. P. Kinnunen, J. Lampiselkä, L. Malmi, V. Meisalo, Identifying Missing Types of Research in Science Education. Proceedings of 10th Conference of the European Science Education Research Association (ESERA) 2013. <http://www.esera.org/publications/esera-conference-proceedings/science-education-research-for-evidence-/>
62. A. Eckerdal, P. Kinnunen, N. Thota, A. Nylén, J. Sheard, and L. Malmi. Teaching and learning with MOOCs: Computing academics' perspectives and engagement. In Proceedings of the 19th Annual Joint Conference on Innovation and Technology in Computer Science Education (ITiCSE '14), p. 9-14.
63. L. Hakulinen, L. Malmi. QR code programming tasks with automated assessment. In Proceedings of the 19th Annual Joint Conference on Innovation and Technology in Computer Science Education (ITiCSE '14), p. 177-182.
64. P. Kinnunen, V. Meisalo, L. Malmi (In print). Highlighting Multi-Level Processes in Science Teaching and Learning. LUMAT: Research and Practice in Math, Science and Technology Education. Proceedings of Nordic Research Symposium on Science Education (NFSUN), 2014.
65. L. Malmi, J. Sheard, Simon, R. Bednarik, J. Helminen, P. Kinnunen, A. Korhonen, N. Myller, J. Sorva, A. Taherkhani, Theoretical Underpinnings of Computing Education Research – What is the Evidence? Proceedings of the Tenth International Conference on Computing Education Research (ICER '14), pp. 27-34.
66. J. Sheard, A. Eckerdal, P. Kinnunen, L. Malmi, A. Nylén, N. Thota, MOOCs and the Impact on Academics. Proceedings of Koli Calling 2014, International Conference on Computing Education Research, pp. 137-145.
67. P. Brusilovsky, S. Edwards, A. Kumar, L. Malmi (co-chairs), L. Benotti, D. Buck, P. Ihtola, R. Prince, T. Sirkiä, S. Sosnovsky, J. Uguiza, A. Vihavainen, M. Wollowski, Increasing Adoption of Smart Learning Content for Computer Science Education. Proceedings of the Working Group Reports of the 2014 on Innovation & Technology in Computer Science Education Conference.
68. P. Kinnunen, V. Meisalo, L. Malmi, Feedback loop model - a tool for systematic analysis of challenges of instructional processes in science education. Proceedings of 11th Conference of the European Science Education Research Association (ESERA) 2015.
69. R. Hosseini, T. Sirkiä, J. Guerra, P. Brusilovsky, L. Malmi, Animated Examples as a Practice Content in Java Programming Course. *Accepted for publication* in SIGCSE Symposium, 2016.

A3. *Articles in peer-reviewed Finnish scientific conference proceedings*

1. J. Hyvönen, L. Malmi: TRAKLA - A System for Teaching Algorithms Using Email and a Graphical Editor. *Proceedings of HYPERMEDIA in Vaasa'93*, 1993, pp. 141-147.
2. J. Hautaniemi, E. Rämö, L. Malmi: CALPAS: A Computer Assisted Learning Environment for Pascal Programming. *Proceedings of HYPERMEDIA in Vaasa'93*, 1993, pp. 116-120.
3. L. Malmi: BALT - A Tool for Studying Balanced Trees. *Proceedings of Vaasa Hypermedia'94*, 1994, pp. 287-293.
4. V. Hirvisalo, K. Kaiju, J. Kotovirta, L. Malmi, E. Nuutila, I. Rein, T. Soininen: VIA - Interactive Graph Algorithm Animator. *Proceedings of Vaasa Hypermedia'94*, 1994, pp. 174-179.

5. A. Korhonen, L. Malmi, J. Nikander, and P. Tenhunen. Automatic Feedback and Algorithm Simulation. In *Proceedings of Kolin Kolistelut - First Annual Baltic Conference on Computer Science Education*, Report A-2002-1, University of Joensuu, Finland, 2002. pp. 20-26.
6. A. Korhonen, L. Malmi, P. Mård, H. Salonen, P. Silvasti. Electronic course material on Data Structures and Algorithms. *Proceedings of Second Finnish / Baltic Sea Conference of Computer Science Education*, Report A-2002-7, University of Joensuu, Department of Computer Science, pp. 16-20.
7. P. Kinnunen, L. Malmi. Problem Based Learning in Introductory Programming Does It Scale Up? *Proceedings of Second Finnish / Baltic Sea Conference of Computer Science Education*, Report A-2002-7, University of Joensuu, Department of Computer Science, pp. 38-42.
8. L. Malmi, S. Ensio, T. Riski. Course Management System For Large Scale Courses. *Proceedings of Second Finnish / Baltic Sea Conference of Computer Science Education*, Report A-2002-7, University of Joensuu, Department of Computer Science, pp. 81-82.
9. A. Korhonen, L. Malmi, P. Silvasti, TRAKLA2: A Framework for Automatically Assessed Visual Algorithm Simulation Exercises. *Proceedings of Third Finnish / Baltic Sea Conference of Computer Science Education*. Report B-2003-3, Department of Computer Science, University of Helsinki, 2003, pp. 41-49.
10. P. Kinnunen, L. Malmi: Some Methodological Viewpoints how to Evaluate Efficiency of Learning in a Small Group - a Case Study of Learning Programming. *Proceedings of XXI Annual Symposium of the Finnish Mathematics and Science Education Research*. Research report 253, University of Helsinki, Department of Applied Sciences of Education, 2004, pp. 510-527.
11. P. Kinnunen, J. Lampiselkä, L. Malmi, V. Meisalo, Pedagogical aspects in Finnish science education research publications. *Proceedings of the annual conference of Finnish Mathematics and Science Education Research Association*, 2013. Research report series of the department of teacher education, University of Jyväskylä. pp. 153-164.

C. *Scientific monographs, edited proceedings*

1. L. Malmi: A Structured Intermediate Language for Modula-2. Teknillinen korkeakoulu, laskentakeskus, Research Report 27, 1986, 37 p.
2. L. Malmi, Pascal-ohjelmien samankaltaisuuden tutkimisesta (On detecting plagiarism in Pascal programs). Licentiate's thesis, Helsinki University of Technology, Department of Computer Science, 1989.
3. L. Malmi et al: Detecting Plagiarism in Pascal and C Programs, Report TKO-B78, Department of Computer Science, Helsinki University of Technology, 1992, 23 p.
4. L. Malmi: An Efficient Algorithm for Balancing Binary Search Trees, Report TKO-B84, Department of Computer Science, Helsinki University of Technology, 1992, 16 p.
5. J. Hyvönen, L. Malmi: TRAKLA - A System for Teaching Algorithms Using Email and a Graphical Editor. Report TKO-B100, Department of Computer Science, Helsinki University of Technology, 1993, 9 p.
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G. *Theses*

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3. L. Malmi, On Updating and Balancing Relaxed Balanced Search Trees in Main Memory, Thesis for a Doctor of Science in Technology, Report A 35, Helsinki University of Technology, Laboratory of Information Processing Science, 1997, 116 p.

Note. No publications in classes B (Non-refereed scientific articles), E (Publications intended for the general public, linked to the applicant’s research), F (Public artistic and design activities), H (Patents and invention disclosures) and I (Audiovisual material, ICT software).