Docētāju un studentu publikācijas

1. **Andris Ambainis**, Robert Spalek, Ronald de Wolf**:** A New Quantum Lower Bound Method, with Applications to Direct Product Theorems and Time-Space Tradeoffs. Algorithmica 55(3): 422-461 (**2009**)

2. **Andris Ambainis, Nikolajs Nahimovs:** Improved constructions of quantum automata. Theoretical Computer Science, 410(20): 1916-1922 (**2009**)

3. **Andris Ambainis,** Jan Bouda, Andreas Winter. Nonmalleable encryption of quantum information. Journal of Mathematical Physics. 50(4): 42106-42113, **2009.**

4. **Arnicane, V.** Complexity of Equivalence Class and Boundary Value Testing Methods. In: Bārzdiņš (ed.), Scientific Papers University of Latvia, Vol 751,Computer Science and Information Technologies, University of Latvia, **2009**,80-101.

5. **V.Arnicane** „Equivalence Class and Boundary Value Testing Methods – Well-Known and Unexplored", 10th Annual Conference for Software Testing Professionals "Test More for Less", June 5, **2009**, Riga.

6. **Arnicans, G., Arnicane, V.** Using the Sponsor-User-Programmer Model to Improve the Testing Process. In: Bārzdiņš (ed.),Scientific Papers University of Latvia, Vol 751, Computer Science and Information Technologies, University of Latvia, **2009**, 65-79.

7. **Guntis Barzdins, Sergejs Rikacovs** and Martins Zviedris: Graphical query language as SPARQL frontend. ADBIS 2009, Local Proceedings, **2009**, pp. 93-107.

8. **Janis Barzdins, Karlis Cerans, Sergejs Kozlovics, Edgars Rencis,** Andris Zarins**:** A Graph Diagram Engine for the Transformation-Driven Architecture, In Proceedings of the IUI'09 Workshop on Model Driven Development of Advanced User Interfaces (MDDAUI-2009), Sanibel Island, USA, February 8, **2009**, CEUR Workshop Proceedings, http://ceur-ws.org, Vol 439, ISSN 1613-0073

9. **Bicevska, Z.,** Applying Smart Technologies: Evaluation of Effectiveness. In: Conference Proceedings of the 2nd International Multi-Conference on Engineering and Technological Innovation: IMETI **2009,** Orlando, Florida, USA, July 10-13, 2009. accesible in http://www.iiis.org/CDs2008/CD2009SCI/IMETI2009/PapersPdf/F788TV.pdf

10. Stibe A., **Bicevskis J.** Web Site Modeling and Prototyping Based on a Domain-Specific Language. In: Bārzdiņš (ed.),Scientific Papers University of Latvia, Vol 751, Computer Science and Information Technologies, University of Latvia, **2009**, 7-21.

11. **J. Bicevskis, E. Karnitis, G. Karnitis,** M. Kucinskis**.** Modelling environment for planning and implementation of national strategy for crisis management. Selected papers of XXII EURO-Mini Conference "Knowledge-Based Technologies and OR methodologies for Strategic Decisions of Sustainable Development" (KORSD-2009), September 30–October 3, 2009, Vilnius, Lithuania, September 30-October 3, **2009**. Pp. 64-68.

12. **A. Kalnins, E. Celms, E. Kalnina** and A. Sostaks. Behaviour Modelling Notation for Information System Design. Proceedings of First European Workshop on Behaviour Modelling in Model Driven Architecture (BM-MDA), Enschede, The Netherlands, June 23, **2009**, CTIT, pp. 29 - 40

13. **Dosbergs Dainis, Borzovs Juris.** Criteria identification for study programme quality assessment and ranking. Trends in quality assurance : a selection of papers from the 3rd European Quality Assurance Forum ed. By Lucien Bollaert, **2009**

14. Ginta Garkaje, **Rusins Freivalds**. Quantum and probabilistic finite multitape automata. SOFSEM 2009: Theory and Practice of Computer Science, Proc. Volume II, pp. 25-34, **2009**

15. **Lelde Lāce**, Oksana Scegulnaja-Dubrovska, **Rūsiņš Freivalds**. Languages Recognizable by Quantum Finite Automata with cut-point 0. SOFSEM 2009: Theory and Practice of Computer Science, Proc. Volume II, pp. 35-46, **2009**

16. **Rūsiņš Freivalds**, Māris Ozols, Laura Mančinska. Improved constructions of mixed state quantum automata. Theoretical Computer Science. Volume 410, pp. 1923-1931, **2009**

17. Ruslans Tarasovs, **Rūsiņš Freivalds**. Group Input Machine. SOFSEM 2009, LNCS 5404, pp.521-532, **2009**

18. E. Kalnina, **A. Kalnins**. DSL tool development with transformations and static mappings. Chaudron, Michel R. V. (Ed.), Models in Software Engineering, Workshops and Symposia at MODELS 2008, Toulouse, France, September 28 - October 3, 2008. Reports and Revised Selected Papers, Lecture Notes in Computer Science, Programming and Software Engineering, Vol. 5421, **2009**, pp. 356 – 370**.**

19. **A. Kalnins**, E. Kalnina, **E. Celms** and A. Sostaks. From requirements to code in a model driven way. Proceedings of 13th East-European Conference on Advances in Databases and Information Systems (ADBIS), Associated Workshops, Riga, Latvia, September 7, **2009**, to appear in Springer LNCS

20. E. Kalnina, **A. Kalnins, E. Celms** and A. Sostaks. Graphical Template Language for Transformation Synthesis. Proceedings of The International Conference on Software Language Engineering (SLE), Denver, USA, October 5 - October 6, **2009**, to appear

21. **Edvins Karnitis**. ICT as a Key Enabler of Innovative Business: The Baltic Case. Elektronisks žurnāls Baltic IT&T Review. http://www.ebaltics.com/index.php?sadala=9

22. **E. Karnitis,** M. Kucinskis. Strategic Planning and Management of National Development Processes in Latvia. Journal of Business Economics and Management; Vol 10, N1, **2009**. pp 3-13.

23. **M. Golovkins, Maksim Kravtsev,** Vasilijs Kravcevs**.** On a class of languages recognizable by probabilistic reversible decide-and-halt automata. Theoretical Computer Science, vol. 410(20), pp. 1942-1951, Elsevier, **2009**.

24. **L. Niedrite, M. Treimanis, D. Solodovnikova,** L. Grundmane. Chapter I: Development of data Warehouse Conceptual Models – method Engineering Approach. In: D. Taniar (Ed.) Progressive Methods in Data Warehousing and Business Intelligence: Concepts and Competitive Analytics, Information Science Reference, pp.1-24, **2009**

25. **M.Opmanis.** – Team competition in mathematics and informatics „Ugāle"- finding new task types. , Olympiads in Informatics, **2009**, Vol.3, pp.80-100.

26. Timo PORANEN, Valentina DAGIENE, Åsmund ELDHUSET, Heikki HYYRÖ, Marcin KUBICA, Antti LAAKSONEN, **Martins OPMANIS**, Wolfgang POHL, Jurate SKUPIENE, Pär SÖDERHJELM, Ahto TRUU. -Baltic Olympiads in Informatics: Challenges for Training Together <http://www.mii.lt/olympiads_in_informatics/htm/INFOL046.htm>., Olympiads in Informatics, **2009**, Vol.3, pp. 112-131

27. **Karlis Podnieks.** Is Scientific Modeling an Indirect Methodology? The Reasoner, Vol. 3, N 1, January **2009**, pp. 4-5.

28. **Karlis Podnieks.** Towards Model-Based Model of Cognition. The Reasoner, Vol. 3, N 6, June **2009**, pp. 5-6.

29. **Solodovnikova D.** An Approach to Supporting Data Warehouse Schema Versions:Overview and Case Study. Local proceedings of the 13th East-European Conference on Advances in Databases and Information Systems, **2009**.g., 8 lpp.

30. **Solodovņikova D.** Metadata to Support Data Warehouse Evolution. Proceedings of the 17th International Conference on Information Systems Development, **2009**. g., Springer, 12 lpp.

31. **D. Šmite** and C. Gencel "Why a CMMI Level 5 Company Fails to Meet the Deadlines?" In proc. of PROFES 2009 int. conf., LNCS, June **2009**, Finland, pp. 87-95

32. M.Krestyaninova, A.Zarins, **J.Viksna**, **N.Kurbatova**, P.Rucevskis, S.Guha Neogi, M.Gostev, T.Perheentupa, J.Knuuttila, A.Barrett, I.Lappalainen, J.Rung, **K.Podnieks**, U.Sarkans, M.McCarthy, A.Brazma A System for Information Management in BioMedical Studies – SIMBioMS. Bioinformatics, doi:10.1093/bioinformatics/btp420, **2009**.

33. **Valdis Takeris, Edgars Diebelis, Jānis Iljins**. Self-tesing in Banking Systems. Tēzes konferencē „Students on their way to Science", LLU Tehniskā fakultāte un Sociālo zinātņu fakultāte.**2009**. gada 14. Maijs, 9.lpp, ISSN 1691-5623

Docētāju un studentu referāti konferencēs

1. **A. Ambainis.** Quantum algorithms are at most polynomially faster than classical for any symmetric function. Workshop on Quantum Information Processing (QIP), Santa Fē, ASV, **2009**. g. janvāris.

2. **A. Ambainis,** K. Iwama, M. Nakanishi, H. Nishimura, R. Raymond, S. Tani and S. Yamashita. Average/Worst-Case Gap of Quantum Query Complexities. Workshop on Quantum Information Processing (QIP), Santa Fē, ASV, **2009**. g. janvāris.

3. **A. Ambainis,** D. Leung, L. Mancinska and M. Ozols. Quantum Random Access Codes with Shared Randomness. Workshop on Quantum Information Processing (QIP), Santa Fē, ASV, **2009**. g. janvāris.

4. **A. Ambainis.** Quantum algorithms with polynomial speedups. Workshop on Federal Vision for Quantum Information Science, Vīne, ASV, **2009.**g. aprīlis.

5. **V.Arnicane** „Equivalence Class and Boundary Value Testing Methods – Well-Known and Unexplored", 10th Annual Conference for Software Testing Professionals "Test More for Less", June 5, **2009,** Riga.

6. **Guntis Barzdins, Sergejs Rikacovs** and Martins Zviedris: Graphical query language as SPARQL frontend. ADBIS 2009, Local Proceedings, **2009**, pp. 93-107.

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8. **Bicevska, Z.,** Applying Smart Technologies: Evaluation of Effectiveness. In: Conference Proceedings of the 2nd International Multi-Conference on Engineering and Technological Innovation: IMETI 2009, Orlando, Florida, USA, July 10-13, **2009**. accesible in http://www.iiis.org/CDs2008/CD2009SCI/IMETI2009/PapersPdf/F788TV.pdf

9. **J. Bicevskis, E. Karnitis, G. Karnitis,** M. Kucinskis**.** Modelling environment for planning and implementation of national strategy for crisis management. Selected papers of XXII EURO-Mini Conference "Knowledge-Based Technologies and OR methodologies for Strategic Decisions of Sustainable Development" (KORSD-2009), September 30–October 3, 2009, Vilnius, Lithuania, September 30-October 3, **2009**. Pp. 64-68.

10. **A. Kalnins, E. Celms,** E. Kalnina and A. Sostaks. Behaviour Modelling Notation for Information System Design. Proceedings of First European Workshop on Behaviour Modelling in Model Driven Architecture (BM-MDA), Enschede, The Netherlands, June 23, **2009**, CTIT, pp. 29 - 40

11. **E. Kalnina, A. Kalnins**. DSL tool development with transformations and static mappings. Chaudron, Michel R. V. (Ed.), Models in Software Engineering, Workshops and Symposia at MODELS 2008, Toulouse, France, September 28 - October 3, 2008. Reports and Revised Selected Papers, Lecture Notes in Computer Science, Programming and Software Engineering, Vol. 5421, **2009**, pp. 356 – 370**.**

12. **A. Kalnins, E. Kalnina, E. Celms** and A. Sostaks. From requirements to code in a model driven way. Proceedings of 13th East-European Conference on Advances in

Databases and Information Systems (ADBIS), Associated Workshops, Riga, Latvia, September 7, **2009**, to appear in Springer LNCS

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16. **Lelde Lāce**, Oksana Scegulnaja-Dubrovska, **Rūsiņš Freivalds**. Languages Recognizable by Quantum Finite Automata with cut-point 0. SOFSEM 2009: Theory and Practice of Computer Science, Proc. Volume II, pp. 35-46, **2009**

17. **Ruslans Tarasovs**, **Rūsiņš Freivalds**. Group Input Machine. SOFSEM 2009, LNCS 5404, pp.521-532, **2009**

18. **D. Kravchenko**. Non-locality and quantum games. Central European Workshop on Quantum Information (CEQIP), Jindřichuv Hradec, Čehija, **2009.g**. jūnijs.

19. **N. Nahimovs, A. Rivosh.** Grover algorithm with probabilistic solutions. Central European Workshop on Quantum Information (CEQIP), Jindřichuv Hradec, Čehija, **2009.g.** jūnijs

20. **M.Opmanis. –** Team competition in mathematics and informatics „Ugāle"- finding new task types. 3rd International Olympiad in Informatics Conference „Task Development and Grading". , Plovdiv, Bulgaria, 8-15 August, **2009.**

21. **Solodovnikova D.** An Approach to Supporting Data Warehouse Schema Versions:Overview and Case Study. Local proceedings of the 13th East-European Conference on Advances in Databases and Information Systems, **2009**.g., 8 lpp.

22. **Solodovņikova D.** Metadata to Support Data Warehouse Evolution. Proceedings of the 17th International Conference on Information Systems Development, **2009**. g., Springer, 12 lpp.

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24. **Valdis Takeris, Edgars Diebelis, Jānis Iljins**. Self-tesing in Banking Systems. Tēzes konferencē „Students on their way to Science", LLU Tehniskā fakultāte un Sociālo zinātņu fakultāte.**2009**. gada 14. Maijs, 9.lpp, ISSN 1691-5623

25. **A. Vasilieva** and R. Agadzanyan. Quantum Query Algorithms for AND, OR and MAJORITY Boolean Functions. Workshop on Quantum Information Processing (QIP), Santa Fē, ASV, **2009.** g. janvāris.