

## List of scientific publications by Jyrki Nummenmaa

### Publications in scientific journals with a refereeing practice

1. J. Guo, Y. Wang, Z. Zhang, J. Nummenmaa, and N. Niu, "Model-driven approach to developing domain functional requirements in software product lines", to appear in *IET software*.
2. Z. Zhang, M. Arvela, E. Berki, M. Muhonen, J. Nummenmaa, and T. Poranen (2010), Towards Lightweight Requirements Documentation, *Journal of Software Engineering and Applications* 3(9), 882-889.
3. W. Lu, Z. Zhang, and J. Nummenmaa, "Rights Decomposition for DRM Interoperability", *International Journal of Wireless Communications and Networking (IJWCN)*, 2:2, 139-147, 2010.
4. Ontologies with Semantic Web/Grid in Data Integration for OLAP, by Tapio Niemi, Santtu Toivonen, Marko Niinimäki, Jyrki Nummenmaa: *Int J. Semantic Web Inf. Syst.*, 3(4): 25-49 (2007)
5. Finding the Permutations Corresponding to a Given young Tableau, by Erkki Makinen and Jyrki Nummenmaa, in *Missouri Journal of Mathematical Sciences*, 19, 2: 84-92 (2007)
6. Normalising OLAP Cubes for Controlling Sparsity, by T. Niemi, J. Nummenmaa, P. Thanisch,, *Data and Knowledge Engineering*. **46**, 3. , 2003, 317-343.
7. A Linear-Time Special Case for MC Games, by T. Poranen, J. Nummenmaa, *Fundamenta Informaticae* **50**, 3-4, , 2002, 315-324
8. Finding Compact Scheme Forests in Nested Normal Form is NP-Hard, by Peter Thanisch, George Loizou and Jyrki Nummenmaa, *Information and Computation*, **110**, 1, 1994, 19-41.
9. Constructing Compact Rectilinear Planar Layouts Using Canonical Representation of Planar Graphs by J. Nummenmaa. *Theoretical Computer Science*, **99**, 1992, 213-230.

### Publications in scientific conferences and books with a refereeing practice

10. W. Lu, Z. Zhang, J. Nummenmaa, Deploying adaptation in rights exporting", accepted by the DRM Workshop of the IEEE CCNC'2012 Conference, to be held on 14.-17.1.2012.
11. P. Thanisch, T. Niemi, M. Niinimäki, J. Nummenmaa, "Mapping a Resource Description Framework OLAP Ontology to the Business Intelligence Semantic Model", *Practical Applications of Intelligent Systems : Proceedings of the Sixth International Conference on Intelligent Systems and Knowledge Engineering (ISKE2011)*, in series Advances in Intelligent and Soft Computing, Springer, 419-428, 2011.
12. Z. Zhang, J. Nummenmaa, J. Guo, J. Ma, Y. Wang, "Patterns for Activities on Formalization Based Requirements Reuse", *Knowledge Engineering and Management - Proceedings of the Sixth International Conference on Intelligent Systems and Knowledge Engineering (ISKE2011)*, in series Advances in Intelligent and Soft Computing, Springer, 615-707, 2011.
13. J. Nummenmaa, T. Nummenmaa, "Database-driven tool support for DisCo executable specifications", *Proc. 12<sup>th</sup> Symposium on Programming Languages and Tools, SPLST'11*, 44-54, 2011.

14. P. Thanisch, T. Niemi, M. Niinimäki, J. Nummenmaa, "Using the Entity-Attribute Value Model for OLAP Cube Construction", Proc. Perspectives in Business Informatics Research, BIR'2011, Lecture Notes in Business Informatics Processing (Springer), 59-72, 2011.
15. M. Niinimäki, T. Niemi, S. Martin, J. Nummenmaa, and P. Thanisch, Data integration for timely report production at the world health organization, Perspectives in Business Informatics Research, 10th International Conference, BIR 2011, Associated Workshops and Doctoral Consortium, Local Proceedings, 331-338, 2011.
16. Using the Entity-Attribute-Value Model for OLAP cube construction, by Thanisch, T. Niemi, M. Niinimäki, and J. Nummenmaa, to appear in in Proceedings of the 10<sup>th</sup> International Conference on Perspectives in Business Information Research – BIR'2011.
17. W. Lu, Z. Zhang, and J. Nummenmaa, "A generic data model with a decomposition operation for DRM interoperability". Proc IEEE International Conference on Wireless Communications, Networking and Information Security (WCNIS), 630 - 634, 2010
18. Automating Support for refactoring SQL databases, by J. Nummenmaa, A. Seppi, P. Thanisch, Proc. 17<sup>th</sup> International Conference on Information and Software Technologies (IT2010), 2010 343-349.
19. Applying weighted finite state machines to protocol performance analysis, by C. Ionescu, E. Berki, J. Nummenmaa, 2009 South-East European Workshop on Formal Methods, IEEE Computer Society, 40-45.
20. A persona method adaptation for requirements engineering in business intelligence reporting, by M. Perez Gort, P. Thanisch, J. Nummenmaa, Z. Zhang, Research communications of 16<sup>th</sup> International Conference on Information and Software Technologies (IT2009), 2009, .
21. Avoiding anomalies when modeling a many-to-many relationship in a multidimensional database, by P. Thanisch,, T. Lindell, J. Nummenmaa, T. Nummenmaa, in Proceedings Eighth International Conference on Perspectives in Business Informatics Research, BIR 2009, 135-146.
22. On selecting a suitable set of reporting platforms, by P. Thanisch, J. Nummenmaa, in Proceedings of the 5<sup>th</sup> International Conference on Perspectives in Business Information Research – BIR'2006.
23. Strategies of Re-Use in Business Intelligence Report Generation and Maintenance, by J. Nummenmaa, P. Thanisch, in Proceedings of XIII Scientific Convention on Engineering and Architecture (CCIA 13), La Habana, Cuba, 2006.
24. Moving towards Domain-Specific Modeling of Software Development by Z. Zhang and J. Nummenmaa, in Proceedings of the NWUML'2005: The 3rd Nordic Workshop on UML and Software Modeling, Tampere, Finland, 29-31 August 2005, 167 – 179
25. PARADISIM: A Framework for Modelling Behavioural Simulators for Parallel and Distributed Systems, by Y.C. Nuckchady, J. Nummenmaa, in proceedings of 2004 Summer Computer Simulation Conference (SCSC'04)
26. Applying Grid Technologies to XML Based OLAP Cube Construction, by T. Niemi, M. Niinimäki, J. Nummenmaa, P. Thanisch, In D. Theodoratos et al. (eds.): Proceedings of the International Workshop on Design and Management of Data Warehouses, DMDW'2003, pages 4-1 – 4-13, 2003.
27. How to draw a sequence diagram, by T. Poranen, E. Mäkinen, J. Nummenmaa, Proceedings of Eighth Symposium on Programming Languages and Software Tools (SPLTP'2003), Kuopio, Finland.

28. An Architecture for Building Collaborative Tools in Java, by Y.C. Nuckchady, J. Nummenmaa, accepted to Eighth Symposium on Programming Languages and Software Tools (SPLTP'2003), Kuopio, Finland.
29. Constructing an OLAP cube from distributed XML data, by T. Niemi, M. Niinimäki, J. Nummenmaa, P. Thanisch, in D. Theodoratis (ed.) Proceedings of DOLAP 2002, ACM Fifth International Workshop on Data Warehousing and OLAP, ACM, 2002.
30. DisCoSim – An Interactive Distributed Commit Simulation and Animation Application, by J. Nummenmaa, P. Thanisch, M. Hakala, S. Kari, J. Ränkimies, E. Salminen, O. Ström, P. Tähkäpää, M. Vakkari, IASTED International Conference on Networks, Parallel and Distributed Processing and Applications 2002 (NPDPA 2002).
31. Practical Distributed Commit in Modern Environments, by J. Nummenmaa, P. Thanisch, In T Gonzalez (ed.) Proceedings of the IASTED International Conference *Parallel and Distributed Computing and Systems*, August 2001, California, USA, 54-61.
32. Transaction Services for Business Objects Middleware, J. Nummenmaa and P. Thanisch, WOOPS'01 Proceedings Book (Workshop on Object-Oriented Business Solutions, held in conjunction of ECOOP'01, Budapest, Hungary, 2001),63-72.
33. Constructing OLAP cubes based on queries, by T. Niemi, J. Nummenmaa, P. Thanisch, DOLAP 2001, In J. Hammer (ed.): Proceedings of ACM Fourth International Workshop on Data Warehousing and OLAP, pages9-15, ACM, 2001.
34. Applying intensional concept theory to OLAP design and queries, by T. Niemi, J. Nummenmaa, P. Thanisch, In H. Kangassalo et al. (eds.): Proceedings of the 11th European-Japanese Conference on Information Modelling and Knowledge Bases, pages 142-153, 2001.
35. Logical multidimensional database design for ragged and unbalanced aggregation hierarchies, by T. Niemi, J. Nummenmaa, P. Thanisch, In D. Theodoratos et al. (eds.): Proceedings of the International Workshop on Design and Management of Data Warehouses, DMDW'2001, pages 7-1 - 7-8, 2001.
36. Functional dependencies in controlling sparsity of OLAP cubes, by Niemi, Tapio, Nummenmaa, Jyrki, and Thanisch, Peter, In Y. Kambayashi et al. (eds.): Proceedings of Data Warehousing and Knowledge Discovery, Second International Conference, DaWaK 2000, Lecture Notes in Computer Science, Vol. 1874, pages 199-209, Springer, 2000.
37. Applying dependency theory to conceptual modelling, by T. Niemi, J. Nummenmaa and P. Thanisch, In O. Majer (ed.): *Topics in Conceptual Analysis and Modeling*, pages 271-290, Czech Academy of Sciences' Publishing House Filosofia, Prague, 2000.
38. A query method based on intensional concept definition, by T. Niemi and J. Nummenmaa, In H. Jaakkola and H. Kangassalo (eds.): *Frontiers in Artificial Intelligence and Applications: Information Modelling and Knowledge Bases XII*, Vol. 67, pages 92-106, IOS Press, 2001.
39. European Student Co-Operation Using Internet within a Project: a Case Study with Special Emphasis in Communication, by J. Nummenmaa, W. Pätzold, M. Dahms, M. Laaksonen, W. Nestler, M.-K. Ojavainio, G. Paul, P.-O. Svedin, International Conference on Project Work in University Studies 1998, Roskilde , Conference Papers, vol. 1, 142-152.
40. Interactive Simulation of Distributed Transaction Processing Commit Protocols, by S. Ramsay, J. Nummenmaa, P. Thanisch, R.J. Pooley, S.T. Gilmore, In P. Luker (ed.): Proceedings of UKSIM'97, Third Conference of the United Kingdom Simulation Society, 1997, 112-127.

41. MEDUSA – A Multimodal Database User Interface and Framework Supporting User Learning and User Interface Evaluation, by Pentti Hietala and Jyrki Nummenmaa, In Richard Cooper (ed.): *Interfaces to Database Systems*, Proceedings of Interfaces to Database Systems (IDS 92), Glasgow, Scotland, July 1992, Springer-Verlag Series Workshops in Computing, 1993, 392-405.
42. Conjectures and Refutations in Database Design and Dependency Theory, by Jyrki Nummenmaa and Peter Thanisch, In S. Abiteboul and P.C. Kanellakis (eds.): Proceedings of ICDT'90, Third International Conference on Database Theory, Paris, France, December 90, Lecture Notes in Computer Science 470, 215-228.
43. Constructing layouts for ER-diagrams from visibility representations, by Jyrki Nummenmaa and Jyrki Tuomi. In H. Kangassalo (ed.), Proceedings of the 9<sup>th</sup> International Conference on Entity-Relationship Approach, North-Holland, 1990, 315-329.
44. Data Base Updates from the Conceptual Schema Level, by Jyrki Nummenmaa and Arto Viitanen. In H. Kangassalo, S. Ohsuga, H. Jaakkola (eds.): *Information Modelling and Knowledge Bases*, IOS, Amsterdam, 1990, 669-682.
45. Graphic Editors for Knowledge Acquisition and Conceptual Schema Design, by Jyrki Nummenmaa and Ossi Numminen. In H. Kangassalo, S. Ohsuga, H. Jaakkola (eds.): *Information Modelling and Knowledge Bases*, IOS, Amsterdam, 1990, 343-354.
46. Why Use A Graphical Conceptual Schema as a User Interface to an Application Data Base. In C. Batini (ed.): *Entity-Relationship Approach*, Elsevier Science Publishers, B.V. (North-Holland), 1989, 33-34. (A panel statement)

#### Scientific monographs

47. Designing Desirable Database Schemes., by J. Nummenmaa An academic dissertation. Department of Computer Science, University of Tampere, publication A-1995-1, 1995.

#### Books and proceedings edited

48. Proceedings of the 6<sup>th</sup> International Conference on Perspectives in Business Information Research – BIR'2007, edited by J. Nummenmaa and E. Söderström.
49. Proceedings of the NWUML'2005: The 3<sup>rd</sup> Nordic Workshop on UML and Software Modeling, 2005, editors K. Koskimies, L. Kuzniarz, J. Nummenmaa, Z. Zhang, 2005.
50. IOI'01 Competition, by J. Nummenmaa, E. Mäkinen, I. Aho (eds), University of Tampere, Department of Computer and Information Sciences, Publication A-2001-7. (Includes also three competition problem descriptions jointly authored by J. Nummenmaa)

#### Other

51. Yet Another Note on Minimal Covers, by Jyrki Nummenmaa and Peter Thanisch, *SIGMOD Record*, **19**, No 3, September 1990, 30.
52. J. Nummenmaa, Z. Zhang, T. Nummenmaa, E. Berki, J. Guo, Y. Wang, "On the Generation of DisCo Specifications from Functional Requirements", University of Tampere, Department of Computer Sciences, report D-2010-13, available electronically: <http://www.cs.uta.fi/reports/dsarja/D-2010-13.pdf>
53. Considerations for Internet student projects between geographically distant institutions based on a European project, in Publication of Future World Conference, Cape Town, 1998, South Africa

- (Invited talk), 8 pages.
54. Layout Algorithms for Fujaba Diagrams, by K. Aaltonen, J. Nummenmaa, T. Poranen, in the Proceedings of the FUJABA days 2003.
  55. A Database Schema Diagram Plugin for Fujaba, by A. Seppi, J. Nummenmaa, in the Proceedings of the FUJABA days 2003.
  56. J. Nummenmaa, Z. Zhang, T. Nummenmaa, E. Berki, J. Guo, Y. Wang, "On the Generation of DisCo Specifications from Functional Requirements", Report D-2010-13, University of Tampere, Department of Computer Sciences, available at <http://www.cs.uta.fi/reports/sarjad/D-2010-13.pdf>