

CV Professor Tore Risch

Full cv: <http://user.it.uu.se/~torer/LongCV.pdf>

Professional preparation

- Undergraduate exam (Swedish 'Fil.Kand.') at Uppsala University 1971, topic areas: Mathematics and Computer Science 1971.
- PhD in Computer Science at Linköping University, 1978, topic areas: Databases, query processing, meta-databases.

Appointments

Academic

- 10/1999 – present University of Uppsala, Sweden, Professor in Database Technology.
- 5/1992 – 9/1999 University of Linköping, Sweden, Professor in Engineering Databases.
- 3/1989 - 9/1991 Stanford University, Visiting scholar in the database group.
- 1/1982-4/1983 University of Uppsala, Research associate.
- 1/1975-1/1981 Uppsala University, Sweden, Doctoral student.
- 2/1972-1/1974 Uppsala University, Sweden, Research associate.

Professional

- 1/1988 - 4/1992 Hewlett-Packard Laboratories, Palo Alto, USA, Computer Scientist.
- 9/1983 - 12/1987 Syntelligence, Inc., Sunnyvale, USA
- 4-8/1983 SRI International, Menlo Park, USA, Computer scientist
- 1/1981-1/1982 IBM Almaden Research Center, San Jose, USA, Postdoctoral fellow.
- 2/1974-12/1974 Research Institute of National Defense (FOA), Sweden, Military service

Tutoring experience

- Main supervisor of 5 graduated Licentiatees
- Main supervisor of 13 graduated PhDs
- Supervisor of 1 post-doc
- Number of PhD students currently in progress: 8

Entrepreneurial achievements

- Architect and developer of Syntel expert system product, <http://www.syntelsoft.com>
- Developed the Mimer-PG report-generator product

Other scientific merits

- Lead research groups at Uppsala and Linköping universities (Sweden) and at HP Laboratories (USA).
- On program committees of over 89 international scientific conferences
- Reviewed papers for 12 international scientific journals
- Member of the Editorial Board of the scientific Journal of Intelligent Information Systems (Springer).
- Editor for the major area Query languages in the Encyclopedia of Database Systems (<http://refworks.springer.com/database-systems/>).
- Reviewed research proposals for:
 - TFR/VR, NUTEK, KK-Stiftelsen (Sweden)
 - NSF (USA)

- The Research Council of Norway
- The Danish Technical Research Council
- The Science Foundation Ireland (SFI)
- Swiss National Science Foundation
- Netherlands Organisation for Scientific Research (NOW).
- Chairman of the intl. review board of research in ICT at Norwegian universities 2002.
- Chairman of the intl. review board of the Distributed Information Systems programme for the Norwegian Research Council, 1999.
- General Chair at three intl. scientific conferences, incl. EDBT/ICDT 2011 (<http://edbticdt2011.it.uu.se/>)
- PC Chair at two intl. scientific conferences
- Demonstration Chair at two intl. scientific conferences
- Panel Chair at one intl. scientific conference
- On review committee for 5 full professorships in Norway and 2 in Sweden.
- On review committee for 2 assistant professorships ('lektorat') in Sweden, 1 in Denmark, and 1 adjunct professor in the US.
- PhD opponent: 2 in Sweden, 2 in France, 3 in Norway, 2 in Holland, and 2 in Denmark.
- Licentiate opponent: 3 in Sweden.

Publications

- 21 peer-reviewed journal papers
- 64 peer-reviewed conference papers
- 11 peer-reviewed book chapters
- 5 US patents
- H-index 24 (Google Scholar, December 2011)
- 3259 citations, (Google Scholar, December 2011)

List of 50 Publications

All publications below are peer reviewed scientific publications.

- [1] M.Sabesan and T.Risch: Adaptive Parallelization of Queries Calling Dependent Data Providing Web Services, chapter in D.Agrawal, K.S.Candan, W-S.Li (eds.): *New Frontiers in Information and Software as Services*, ISBN 978-3-642-19293-7, Springer, 2011.
- [2] M.Sabesan and T.Risch: Adaptive Parallelization of Queries to Data Providing Web Service Operations, accepted to *Transactions on Large-Scale Data- and Knowledge-Centered Systems*, Springer, 2012.
- [3] E.Zeitler and T.Risch: Massive scale-out of expensive continuous queries, *Proceedings of the VLDB Endowment*, ISSN 2150-8097, Vol. 4, No. 11, p 1181-1188, 2011
- [4] M. Sabesan, T. Risch, and F. Luan: Automated Web Service Query Service, *International Journal of Web and Grid Services (IJWGS)*, Inderscience, Volume 6, Number 4, 2010.
- [5] S. Stefanova and T. Risch: SPARQL Queries to RDF Views of Topic Maps, *International Journal of Metadata, Semantics and Ontologies (IJMSO)*, Inderscience, Vol. 5, No. 1, 2010.
- [6] A.Andrejev and T.Risch: Scientific SPARQL: Semantic Web Queries over Scientific Data, presented at *The 3rd International Workshop on Data Engineering Meets the Semantic Web (DESWEB 2012)*, Washington DC, USA, 2012.
- [7] M.Zhu and T.Risch: Querying Combined Cloud-Based and Relational Databases, presented at *The 2011 International Workshop on Data Cloud (D-CLOUD 2011)*, December 12, Hong Kong, 2011.
- [8] S.Toor, M.Sabesan, S.Holmgren, and T.Risch: A Scalable Architecture for e-Science Data Management, presented at *7th IEEE International Conference on e-Science, Stockholm, Sweden, 5th -8th December, 2011*.
- [9] S.Stefanova and T.Risch: Optimizing Unbound-property Queries to RDF Views of Relational Databases, presented at *The 7th International Workshop on Scalable Semantic Web Knowledge Base Systems (SSWS2011)*, Bonn, Germany, October 2011.
- [10] E. Zeitler and T.Risch: Scalable Splitting of Massive Data Streams, in *Proc. 15th Conf. on Database Systems for Advanced Application, DASFAA 2010*, Tsukuba, Japan, 1-4 April, 2010
- [11] R.Fomkin and T.Risch: Optimization and Execution of Complex Scientific Queries over Uncorrelated Experimental Data, *Proc. 21st International Conference on Scientific and Statistical Database Management (SSDBM 2009)*, New Orleans, Louisiana USA, June 2009.
- [12] T. Risch, H. Balakrishan, J. Gehrke, L. Girod, M. Ivanova, S. Madden, R. Newton, B. Panda, M. Riedewald, and E. Zeitler: *Analyzing data streams in scientific applications*, chapter in upcoming book: Arie Shoshani and Doron Rotem (editors): *Scientific Data Management: Challenges, Existing Technology, and Deployment*, CRC Press, 2009.
- [13] M. Sabesan and T.Risch: Adaptive Parallelization of Queries over Dependent Web Service Calls, to be presented at *1st IEEE Workshop on Information & Software as Services, WISS 2009*, Shanghai, China, March, 2009.
- [14] S.Stefanova and T.Risch: Viewing and Querying Topic Maps in terms of RDF, *SEMMA2008: First International Workshop on Semantic Metadata Management and Applications*, Tenerife, Spain, June 2008.
- [15] Gidofalvi, T.B. Pedersen, T.Risch, and E.Zeitler: Highly Scalable Trip Grouping for Large Scale Collective Transportation Systems, *Proc. 11th International Conference on Extending Database Technology, EDBT 2008*, Nantes, France, March 2008.
- [16] Haoxue Ma and T.:Risch: A Database Approach for Information Communication in a Peer-to-Peer Collaborative CAD Environment *Software - Practice and Experience J.*, Vol. 37, No. 11, John Wiley & Sons, Ltd., 2007.
- [17] R.Fomkin and T.Risch: Cost-based Optimization of Complex Scientific Queries, *Proc. 19th International Conference on Scientific and Statistical Database Management (SSDBM 2007)*, Banff, Canada, July 9-11, 2007.

- [18] E.Zeitler and T.Risch: Using stream queries to measure communication performance of a parallel computing environment. *Proc. 1st International Workshop on Distributed Event Processing, Systems and Applications (DEPSA)*, Toronto, Canada, June 29, 2007.
- [19] M.Sabesan and T.Risch: Web Service Mediation Through Multi-level Views, *Proc. International Workshop on Web Information Systems Modeling (WISM 2007)*, Trondheim, Norway, June 12, 2007.
- [20] M.Ivanova and T.Risch: Customizable Parallel Execution of Scientific Stream Queries, *31st International Conference on Very Large Databases, VLDB2005*, Trondheim, Norway, 2005.
- [21] M.Nyström and T.Risch: Optimising Mediator Queries to Distributed Engineering Systems, *9th International Conference on Database Systems for Advanced Applications (DASFAA 2004)*. Jeju Island, Korea, March 17-19, 2004.
- [22] M.Nyström and T.Risch: Engineering Information Integration using Object-Oriented Mediator Technology, *Software - Practice and Experience J.*, Vol. 34, No. 10, pp 949-975, John Wiley & Sons, Ltd., 2004.
- [23] T.Risch: Functional Queries to Wrapped Educational Semantic Web Meta-data in P.Gray, L.Kerschberg, P.King, and A.Poulovassilis (eds.): *Functional Approach to Data Management - Modeling, Analyzing and Integrating Heterogeneous Data*, Springer, ISBN 3-540-00375-4, 2003.
- [24] T.Risch, V.Josifovski, and T.Katchaounov: Functional Data Integration in a Distributed Mediator System, in P.Gray, L.Kerschberg, P.King, and A.Poulovassilis (eds.): *Functional Approach to Data Management - Modeling, Analyzing and Integrating Heterogeneous Data*, Springer, ISBN 3-540-00375-4, 2003.
- [25] K.Orsborn, T.Risch, and S.Flodin: Representing Matrices Using Multi-Directional Foreign Functions, in P.Gray, L.Kerschberg, P.King, and A.Poulovassilis (eds.): *Functional Approach to Data Management - Modeling, Analyzing and Integrating Heterogeneous Data*, Springer, ISBN 3-540-00375-4, 2003.
- [26] T.Katchaounov, V.Josifovski, and T.Risch: Scalable View Expansion in a Peer Mediator System, *Proc. 8th International Conference on Database Systems for Advanced Applications (DASFAA 2003)*, Kyoto, Japan, March 2003.
- [27] V.Josifovski and T.Risch: Query Decomposition for a Distributed Object-Oriented Mediator System. *Distributed and Parallel Databases J.*, 11(3), pp 307-336, Kluwer, May 2002.
- [28] W.Litwin and T.Risch: LH*g : a High-availability Scalable Distributed Data Structure by Record Grouping. *IEEE Transactions on Knowledge and Data Engineering*, 14 (4), pp 923-927, July/August 2002.
- [29] W.Neidl, B.Wolf, C.Qu, S.Decker, M.Sinek, A.Naeve, M.Nilsson, M.Palmér, and T.Risch: EDUTELLA: A P2P Networking Infrastructure Based on RDF. Presented at *11th International World Wide Web Conference*, Honolulu, Hawaii, USA, May 2002.
- [30] M.Koparanova and T.Risch: Completing CAD Data Queries for Visualization, *International Database Engineering and Applications Symposium (IDEAS 2002)*, Edmonton, Alberta, Canada, July 17-19, 2002.
- [31] J.Fredriksson, P.Svensson, and T.Risch: Mediator-Based Evolutionary design and Development of Image Meta-Analysis Environments, *Journal of Intelligent Information Systems*, 17(2-3), pp 301-322, 2001.
- [32] P.Roland, G.Svensson, T.Lindeberg, T.Risch, P.Baumann, A.Dehmel, J.Fredriksson, H.Halldorson, L.Forsberg, J.Young, and K.Zilles: A database generator for human brain imaging, *TRENDS in Neurosciences*, 24(10), October 2001.
- [33] T.Risch and V.Josifovski: Distributed Data Integration by Object-Oriented Mediator Servers. *Concurrency and Computation: Practice and Experience J.* 13(11), John Wiley & Sons, September, 2001.
- [34] Y. Ndiaye, A. W. Diène, W. Litwin, and Tore Risch: AMOS-SDDS: A Scalable Distributed Data Manager for Windows Multicomputers, Presented at *14th International Conference on Parallel and Distributed Computing Systems*, Dallas, Texas, August 8-10, 2001.
- [35] V.Josifovski and T.Risch: Integrating Heterogeneous Overlapping Databases through Object-Oriented Transformations, presented at *25th Intl. Conf. On Very Large Databases*, Edinburgh, Scotland, September 1999.
- [36] V.Josifovski and T.Risch: Functional Query Optimization over Object-Oriented Views for Data Integration, *Journal of Intelligent Information Systems (JIIS)*, Kluwer, 12(2-3), 1999. April 1999.
- [37] L.Lin and T.Risch: Querying Continuous Time Sequences, *24th Intl. Conf. On Very Large Databases*, New York City, August 1998.

- [38] Gustav Fahl and Tore Risch: Query Processing over Object Views of Relational Data, *VLDB Journal*, Springer Verlag, 6(4), pp 261-281, November 1997.
- [39] S.Grufman, F.Samson, S.M.Embury, P.M.D. Gray, and T.Risch: Distributing Semantic Constraints Between Heterogeneous Databases. *The 13th International Conference on Data Engineering (ICDE'97)*, Birmingham, England, April 7-11, 1997, (<http://www.csd.uu.se/~udbl/publ/icde97.pdf>).
- [40] J. S. Karlsson, W. Litwin, and Tore Risch: LH*lh A Scalable High Performance Data Structure for Switched Multicomputers. *The Fifth International Conference on Extending Database Technology (EDBT'96)*, Avignon, France, March 25-29, 1996.
- [41] M. Sköld and T. Risch: Using Partial Differencing for Efficient Monitoring of Deferred Complex Rule Condition. *The 12th International Conference on Data Engineering (ICDE'96)*, New Orleans, Louisiana, Feb. 24-Mar 1, 1996.
- [42] S. Flodin and T. Risch: Processing Object-Oriented Queries with Invertible Late Bound Functions. *The 21st International Conference on Very Large Databases (VLDB'95)*, Zurich, Switzerland, September 11-15, 1995.
- [43] W.Litwin and T.Risch: Main Memory Oriented Optimization of OO Queries using Typed Datalog with Foreign Functions, in special section on Main Memory Databases of *IEEE Transactions on Knowledge and Data Engineering*. Vol.4, No.6, Dec. 1992.
- [44] T.Risch and G.Wiederhold: Building Adaptive Applications using Active Mediators. *Intl. Conf. on Database and Expert Systems Applications (DEXA'91)*, Springer-Verlag, 1991.
- [45] T.Risch: Monitoring Database Objects. *The 15th Conf. on Very Large Databases*, Amsterdam, Holland, 1989.
- [46] T.Risch, R.Reboh, P.Hart, and R.Duda: A functional approach to integrating database and expert systems. In *Communications of the ACM*, 31, 12 (Dec. 1988).
- [47] R.O.Duda, P.E.Hart, R.Reboh, J.Reiter, and T.Risch: SYNTEL: Using a Functional Language for Financial Risk Assessment', *IEEE Expert* 2, 3 (Fall 1987).
- [48] R.Reboh and T.Risch: Syntel: Knowledge programming using functional representations. *AAAI Conf. -86*, Philadelphia, Pa., Aug. 11-16, Morgan Kaufman, Los Altos, Calif., 1986.
- [49] P.Lucas and T.Risch: Representation of factual information by equations and their evaluation. *The 6th Intl. Conf. on Software Engineering*, Tokyo, Japan, Sept. 13-16, IEEE, New York, 1982.
- [50] T.Risch: Production program generation in a flexible data dictionary system. *The 6th Conf. on Very Large Databases*, Montreal, Canada, Oct. 1-3, 1980.