Mehdi Jazayeri
Curriculum Vitae
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Personal Data

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Date of birth: 11 November 1949

Current Position

Since October 2004, Professor and Founding Dean, Faculty of Informatics, University of Lugano, Lugano, Switzerland.

Technical Interests

Programming languages; Software engineering; distributed systems; computer science education.

Externally funded projects at the Technical University of Vienna

- Swiss Virtual Campus Project: Fundamental Programming Modules (2006 - 2007)
- EU 6th Framework Project PLASTIC (2006 – 2009) Subject area: service integration in future communication environments
- EU 6th Framework Project NEPOMUK (2006 – 2009) Subject area: peer-to-peer implementation of semantic web applications
- Interregional Project CEOS (2005 – 2006) Subject area: open source software

Previous Position
Technical University of Vienna, Vienna, October 1994 – October 2004, Austria

- Professor of Computer Science and Head of the Distributed Systems Group, Information Systems Institute

Externally funded projects at the Technical University of Vienna

- Austrian National Science Foundation project Ray: Systematic Development of Correct Event-Based Systems (2003-2005)
- EU Project Nedine (Intelligent News Distribution Network for multinational business news exchange and dissemination), 2004 –
- EU Project MetaLogo, 2004-
- EU Framework 5 Project EasyComp, on component composition (2000-2003)
- EU Framework 5 Project MOTION, on web-enabled support for design and manufacturing teams (2000-2002)
- EU Framework 5 Project SPARTA, on Internet security using mobile agents (2000-2002)
- EU Framework 5 Project OPELIX: Open Personalized Information Commerce (2000-2002)
- ITEA project CAFÉ (a project under Eureka 2023 Programme)
- Austrian National Science Foundation project OPELIX: Open Information Commerce System (2000-2002)

- IBM Faculty Partnership Award (2000-2002)
- IBM grant on Mobile Agent technology (1999-2000)
- Usenix grant on student support for newscache improvements (1999-2000)
- Architectural Reasoning for Embedded Systems (ARES), European Union Esprit Program, 1995 - 1998
- PROMOTER-2 European working group on software process technology, 1995 - 98
- Vienna International Festival, grant for development of web presence technologies, 1995 - 2005
- RENOIR network on Requirements Engineering, European Network of Excellence, 1996 - 99
- Hewlett-Packard European Internet Initiative, grant for new curriculum development, 1997
- Hewlett-Packard Austria equipment grant, 1996
- Hewlett-Packard Laboratories, Palo Alto, California, grant for support of Internet Research, 1996
- Hewlett-Packard Austria equipment grant, 1995 (networking lab)
- Hewlett-Packard Laboratories, Palo Alto, California, grant for support of software engineering research, 1995
- Bank Austria, grant for evaluation of software component technology, 1995

Industrial Experience

Hewlett-Packard Laboratories, April 1986 - October 1994, Palo Alto, California

- Project Manager, Computing Systems Lab
  Managed the Research Project on Environments and Applications of Parallel Processing. Goal was to develop new algorithms, paradigms, and supporting tools to enable the use of highly parallel computers.

- Acting Director and Project Manager, Pisa Science Center
  From May 1989 until November 1992, I was involved in setting up a new research center for Hewlett-Packard Laboratories in Pisa, Italy. The goal of the center is to *globalize* the research program of Hewlett-Packard to take advantage of the research strengths in Europe. Defined and managed a research project on *General-Purpose Parallel Processing*. The goal of the project was to make massive parallelism affordable and usable by traditional programmers in traditional applications (See publications). The group consisted of HP employees on assignment from the U.S., faculty members and PhD students from the University of Pisa, and postdoctoral fellows.

- Member of Technical Staff
  From April 1986 to November 1989, one of three chief architects for a distributed system project to build a high-performance transaction processing system by connecting independent computers.

Ridge Computers, March 1985 - April 1986, Santa Clara, California
- Project Manager, Languages
  Managed and led the development of the programming environment for all languages on Ridge's UNIX-based, high-performance, RISC-architectured workstation. Investigated AI languages (LISP, PROLOG, OPS5) for RISC. Developed a new family of optimizing compilers with many novel features for RISC machines.

Synapse Computer Corporation, April 1981 - March 1985, Milpitas, California

One of the original employees of this start-up company which designed and built a state-of-the-art fault-tolerant multiprocessor system. One of the first commercial shared-memory multiprocessors, the Synapse system had an integrated programming environment based on a built-in relational database.

- Department Manager, Programming Languages and Environment
  Technical and administrative management of a group of (about 10) responsible for system and application development environments including compilers, editors, debuggers, linker, runtime libraries, data dictionary, window management, and transaction processing tools.

- Manager, Software Quality Assurance, February 1984 - December 1984
  Created a Software QA group, established the direction and strategy, including the testing methodology.

TRW Vidar, June 1980 - April 1981, Mountain View, California

- Senior Scientist
Responsible for new technology: teaching and consulting on languages, microprocessors, and software design methodology.

Army Institute for Research in Management Information and Computer Science, Atlanta, Georgia

- Senior Software Engineering Researcher, 1977-78, on leave from the University of North Carolina

Academic Experience

University of North Carolina, January 1975 - June 1980, Chapel Hill, N. C.

- Assistant Professor of Computer Science

Funded Research

Attribute grammars and programming language semantics, National Science Foundation, Principal Investigator, 1976

Research in software engineering, US Army Computer Systems Command, co-investigator with Fred Brooks, 1977

Development of tools to assist in the teaching of disciplined programming, National Science Foundation, co-investigator with Dave Parnas, 1978

Courses taught

Programming languages; Computer software; Systematic programming; Programming systems; Advanced seminar on language implementations; Compiler design; Program optimization;

University of Santa Clara, 1985 - 1989, Santa Clara, California, Adjunct Professor in EECS

Taught traditional courses on Programming Languages and Operating Systems. Designed and taught advanced courses on Distributed Systems, Parallel Programming, and Concurrent Programming and Ada.

Georgia Institute of Technology, 1977 - 78, Atlanta, Georgia, Adjunct Professor in EECS

Taught a course on Compiler Design

San Jose State University, 1982 - 83, San Jose, California, Adjunct Professor in EECS

Taught a course on Programming Languages

Honors

Best Paper Award, Workshop on Software Engineering and Middleware (SEM 2004).
Best Paper Award, IEEE International Conference on Software Maintenance (ICSM 1997).
Fulbright Senior Scholar at the University of Helsinki, Helsinki, Finland, Summer 1979: taught a short course on program optimization; did research in attribute grammars.

Senior Member, IEEE (1991)

Textbooks

- **Software Architecture for Product Families: Principles and Practice**, Addison-Wesley, 2000. co-authored with Alexander Ran and Frank van der Linden.

- **Programming Language Concepts**, John Wiley & Sons, 1982; 2nd edition, 1987; 3rd edition, 1997. co-authored with Carlo Ghezzi.

- **Fundamentals of Software Engineering**, Prentice-Hall, 1991; 2nd edition, 2002. co-authored with Carlo Ghezzi and Dino Mandrioli.

Books Edited

- **The Proceedings of an International Seminar on Generic Programming** (Springer Verlag, 2000), co-editor with David Musser and Rudiger Loos.

- **Proceedings of the Sixth European Software Engineering Conference and the Fifth ACM Symposium on the Foundations of Software Engineering**, editor, Springer-Verlag, 1997.

- **Tutorial on Process-Centered Software Engineering Environments**, IEEE Computer Society Press, 1995; co-authored with Pankaj Garg.

Editorships

- Editorial Board, ACM Transactions on Software Engineering and Methodology (2004-).
- Editorial Board, Studies in Communication Sciences (2001- 2004).
- Associate Editor, IEEE Transactions on Software Engineering (1996-2001).
- Associate Editor, Theory and Practice of Object Systems (1997-2000).
- Special Section of IEEE Transactions on Software Engineering: Selected papers from ESEC/FSE '97, September 1998.
- Special Section of IEEE Transactions on Software Engineering: Feature Interaction in Telecommunications Software Systems, October 1998.
- Special Issue of IEEE Transactions on Software Engineering: Tools and languages for general purpose parallel processing, in preparation.

Invited Lectures

- Keynote talk at the International Workshop on Principles of Software Evolution (IWPSE), Lisbon, Portugal, September 2005.

     Lecture: Species evolve, individuals age

- Keynote talk at 13th Euromicro Conference on Parallel, Distributed and Network-based Processing, February 2005

     Lecture: A new department of computer science and some research directions

- Keynote talk at 19th IEEE International Conference on Automated Software Engineering, September 2004

     Lecture: The education of a software software engineer

- International Workshop on Ubiquitous Mobile Information and Collaboration Systems (UMICS) Velden, Austria, 16-17 June, 2003

     Lecture: Pervasive Software Services for Mobile Ad-Hoc Teams

- Ticino Informatica, Lugano, Switzerland, November 2002.

     Lecture: A modern curriculum for the teaching of (pervasive) informatics

- Monterey Workshop on Radical Innovations in Software Engineering, Venice, Italy, October 2002.

     Lecture: Software Components: Pervasive Challenges

- Twenty-second Brazilian Conference on Software Engineering, October 2002.

     Lecture: On the way to pervasive computing

- Conference on Reliable Software Technologies, Ada-Europe 2002

    Lecture: On architectural stability and evolution

- Saladin Workshop (Software Architectures and Languages to coordinate Distributed Mobile Components), Venice, Italy, February 14, 2001

    Lecture: Software Components for Web Based Systems

- UCI Distinguished Lecture Series, University of California at Irvine, January 26, 2001

    Lecture: Evolution of programming language concepts through three editions of a textbook

- Keynote presentation at the European Reuse Workshop (ERW '97), Brussels, Belgium, November 26-27, 1997.

    Lecture: The premises and the promises: a critical look at software reuse

- Object//Component '97, International Congress, Vienna, Austria, November 25, 1997

    Lecture: The Java programming language: its heritage and its use

- Panelist at the IEEE 21st International Conference on Computer Software and Applications, Washington, DC, August 13-15, 1997.

    Panel: The future developments and requirements of software technology

- Second Brazilian Symposium on Programming Languages, Campinas, Brazil, September 3-5, 1997

    Lecture: Evolution of programming language concepts through three editions of a textbook

    Lecture: Java: its heritage and use—an early assessment

- International Seminar on Massively Parallel Systems, Capri, Italy, May 28-June 2, 1990

    Lecture: A multifaceted research program in concurrent computing

- CRAI Research Institute, Cosenza, Italy, June, 1988.

    One-week seminar on distributed programming techniques and toolkits.

- International Seminar on Object-Oriented Design Techniques, Capri, Italy, June 1988.

    Lecture: Distributed software design techniques

- Politecnico di Milano, Milan, Italy, April-May, 1988.

    Guest lecturer: six-week course on distributed systems.

Tutorials developed and presented

- **Process-Centered Software Engineering Environments**, with Pankaj Garg
  Given at the 16th International Conference on Software Engineering, May 16-21, 1994, Sorrento, Italy; at the Second ACM SIGSoft Symposium on the Foundations of Software Engineering, December 1994, New Orleans, Louisiana; and at the 17th International Conference on Software Engineering, April 24, 1995, Seattle, Washington.

- **Software design and implementation with C++ components**, with Georg Trausmuth
  Given at the 18th International Conference on Software Engineering, March, 1995, Berlin, Germany; at the Fourth ACM SIGSoft Symposium on the Foundations of Software Engineering, Octobe 1996, San Francisco, California; at the 5th European Software Engineering Conference, September, 1995, Sitges (Barcelona), Spain, at the 1997 European Conference on Object Oriented Programming, June 1997 (Finland); at Safecomp '96, Septemer 1996, Vienna, Austria; at Object World, Frankfurt am Main, Germany, October 1997.

- **From C++ to Java**
  Given at Object World, Frankfurt am Main, Germany, October 7 - 10, 1997.

- **C++ for software engineering: standard solutions to standard problems**, with Georg Trausmuth
  Given at the International Conference on Software Engineering (ICSE 98), Kyoto, Japan, April 20, 1998.

Professional Leadership

Steering Committee Chair (elected), European Software Engineering Conference,1997-2003.

Steering Committee Member (elected), International Conference on Software Engineering, 1997-2002.

Program Committee Co-Chair, International Conference on Software Engineering (ICSE 2000), Limerick, June 5-9, 2000.

General Chair, 7th European Workshop on Software Process Technology (EWSPT-2000), Kaprun, Austria, February 21-25, 2000.

General Chair, ACM Symposium on Software Reusability (SSR '99), Los Angeles, May 22-23, 1999.

Conference Chair, Second European Conference on Parallel and Distributed Systems (EUROPDS 98), Vienna, July 1998.

Conference Chair, 22nd IEEE International Computer and Software Applications Conference, (COMPSAC 98), Vienna, August 1998.

Chairman of track on object oriented systems, 15th Annual IEEE Computer Software and Applications Conference (COMPSAC '91), 1991.

Registration Chairman, ACM Conference on Language Design for Reliable Software, 1976.

Program Committees

Distributed Objects and Applications (DOA, 2003, 2004, 2005)

Software Composition (SC 2004, 2005)

International Workshop on Distributed Event-Based Systems (DEBS 2004, 2005)

Member, International Conference on Software Engineering (ICSE 1992, 1998, 2001, 2003, 2005)

Fundamental Approaches to Software Engineering (FASE 2003, FASE 2005)

Joint European Software Engineering Conference and ACM Symposium on Foundations of Software Engineering (ESEC-FSE 1999, 2001, 2003, 2005)

International Workshop on Principles of Software Evolution (IWPSE 1999 – 2005)

Workshop on Software Engineering and Middleware (SEM 1999, 2002, 2004)

Joint Modular Languages Conference (JMLC 2000, 2003)

Twelfth International Symposium on Formal Methods (FME 2003), Pisa, Italy, September 2003.

IEEE International Conference on Automated Software Engineering, Hawaii, October 1998.

4th International Conference on Achieving Quality in Software, Venice, Italy, March 1998.

6th European Software Engineering Conference and Fifth ACM Symposium on the Foundations of Software Engineering, Zurich, Switzerland, Sept. 1997.

Tutorials Chair, 19th International Conference on Software Engineering, Boston, Massachusetts, 1997.

ACM SIGSOFT '96, Fourth Symposium on the Foundations of Software Engineering, San Francisco, 1996.

ACM Symposium on Software Reusability (SSR '97), Seattle, May 18-20, 1997.

Member, European Conference on Object-Oriented Programming, 1996, 1997, 1999, 2000, 2001, 2003, 2004.

MPCS '96, Second International Conference on Massively Parallel Computing Systems, Ischia, Italy, 1996.

1995 European Workshop on Software Process Technology, 1995.

5th European Software Engineering Conference, Sitges (Barcelona), Spain, 1995.

IEEE Conference on Computer Languages (ICLP), 1992.

Workshop on Parallel and Distributed Workstation Systems, 1991.

IEEE Computer Software and Applications Conference COMPSAC), 1990, 1991, 1992, 1993, 1994.

ACM SIGPLAN '82 Compiler Construction Conference, 1982.

Membership in Professional Societies

ACM, Austrian Computer Society, German Computer Society, IEEE (Senior Member), Swiss Computer Society

Patents

- A mechanism to share multiple events among a plurality for concurrent execution in distributed environments, with M. Hao, and A. Karp, HP Dkt.No.1094886-1, applied May 1996.
- Method and apparatus for stably partitioning a sequential list in a space-adaptive manner, Att.Dkt.No.1093640, Applied Nov. 1993.
- Method and apparatus for stably sorting or merging sequential lists in a space-adaptive manner, Att.Dkt.No.1093647, Applied Nov. 1993.

Education

- Ph.D., Computer Science, Case Western Reserve University, 1975
- M.S., Computer Engineering, Case Western Reserve University, 1973
- S.B., Electrical Engineering, Massachusetts Institute of Technology, 1971

BOOKS

Fundamentals of Software Engineering, Carlo Ghezzi, Mehdi Jazayeri, and Dino Mandrioli, Prentice Hall, 199, Second Edition 2002). (reviewed in **Computing Reviews 33**(7), July 1992, CR 9207-0440).

Software Architecture for Product Families, Mehdi Jazayeri, Alexander Ran and Frank van der Linden, Addison-Wesley, 2000.

Programming Language Concepts, Carlo Ghezzi and Mehdi Jazayeri, John Wiley & Sons, Inc., 1982; 2nd Edition, 1987; 3rd Edition, 1997. First edition translated into Spanish and Portuguese. (reviewed in **Computing Reviews 24**(5), May 1983, CR 40287). Second edition, with major revisions, was published in January 1987. Translated into German, Dutch and Italian. (reviewed in **Computing Reviews 28**(11), November 1987, CR 8711-0905. The comparative review of 8 books chose the top three and went on to say, "Of the three books... Ghezzi and Jazayeri is the most lively and well written.").

EDITED BOOKS

M. Jazayeri, R. Loos, and D. Musser (Eds). **Generic Programming,** Lecture Notes in Computer Science 1766**,** Springer-Verlag, 2000.

M. Jazayeri and H. Schauer (Eds). **Proceedings of the Sixth Software Engineering Conference and the Fifth ACM Symposium on the Foundations of Software Engineering,** Lecture Notes in Computer Science 1301, Springer-Verlag, 1997.

P. Garg and M. Jazayeri (Eds). **Process-Centered Software Engineering Environments,** IEEE Computer Society Press, 1996.

JOURNAL PAPERS

Engin Kirda, Mehdi Jazayeri, Clemens Kerer, and Markus Schranz, "Experiences in Engineering Flexible Web Services.," **IEEE Multimedia**, January - March 2001.

Pankaj Garg and Mehdi Jazayeri, "Process-centered software engineering environments—a grand tour," **Trends in Software,** Vol. 5, January, 1996, John Wiley & Sons.

Carlo Ghezzi and Mehdi Jazayeri, "Programming in the large with Ada: An evaluation," **Rivista di Informatica XI**(4): 383-391, December 1981.

Mehdi Jazayeri, "A simpler construction to show the intrinsically exponential complexity of the circularity problem for attribute grammars," **Journal of the ACM 28**(4): 715-720, October 1981.

Mehdi Jazayeri and Diane Pozefsky, "Space-efficient storage management in an attribute grammar evaluator," **ACM Transactions on Programming Languages and Systems 3**(4): 388-404, October 1981, (reviewed in **Computing Reviews 23**(2), February 1982, CR 39002).

Mehdi Jazayeri, "An improvement in the iterative data flow analysis algorithm," **Information Processing Letters 10**(2): 108-110, March, 1980.

John Crawford and Mehdi Jazayeri, "A new approach to code motion and its application to hoisting," **Journal of Computer Languages 5**(1): 29-36, January 1980.

Wayne Babich and Mehdi Jazayeri, "The method of attributes for data flow analysis, Part I: Exhaustive analysis," **Acta Informatica 10**(3): 245-264, November 1978.

Wayne Babich and Mehdi Jazayeri, "The method of attributes for data flow analysis, Part II: Demand analysis," **Acta Informatica 10**(3): 265-272, November 1978.

Mehdi Jazayeri, W. F. Ogden, and W. C. Rounds, "The intrinsically exponential complexity of the circularity problem for attribute grammars," *invited paper*, **Communications of the ACM 18**(12): 697-706, December 1975, (reviewed in **Computing Reviews 17**(4), April 1976, CR 29824).

CONFERENCE PAPERS

Mehdi Jazayeri. Species evolve, individuals age (keynote paper). In **Proceedings of the International Workshop on Principles of Software Evolution (IWPSE)**, Lisbon, Portugal, IEEE CS Press, September 2005.

Multiple authors, Challenges in software evolution, In **Proceedings of the International Workshop on Principles of Software Evolution (IWPSE)**, Lisbon, Portugal, IEEE CS Press, September 2005.

Gerald Reif, Harald Gall, Mehdi Jazayeri. WEESA - Web Engineering for Semantic Web Applications. **Proceedings of the14th International World Wide Web Conference**, Chiba, Japan, 2005.

Mehdi Jazayeri and Johann Oberleitner. Predicting Incompatibility of Transformations in Model-driven Development, **Electronic Notes in Theoretical Computer Science**,Volume 127, Issue 3, 11 April 2005, Pages 129-137. Proceedings of the Workshop on Software Evolution through Transformations: Model-based vs. Implementation-level Solutions (SETra 2004).

Pascal Fenkam, Mehdi Jazayeri, Formally Designing an Event-Based Application for Mobile Collaboration: A Case Study, **Workshop on Software Engineering and Mobility**, September 2004, Linz, Austria. Springer Verlag Lecture Notes in Computer Science 3437. (**Winner of best paper award**.)

Mehdi Jazayeri. The education of a software engineer. (invited paper) **Proceedings of the 19th IEEE International Conference on Automated Software Engineering (ASE 2004)**, September 2004, Linz, Austria.

Clemens Kerer, Schahram Dustdar, Mehdi Jazayeri, Daniel Gomes, Szego, A., Burgos Caja, J.A. Presence-Aware Infrastructure using Web services and RFID technologies, **2nd European Workshop on Object Orientation and Web Services, ECOOP Workshop**, 14 June 2004, Oslo, Norway, Springer LNCS.

Gerald Reif, Mehdi Jazayeri, Harald Gall. Towards Semantic Web Engineering: WEESA - Mapping XML Schema to Ontologies. **WWW Workshop on Application Design, Development and Implementation Issues in the Semantic Web** 2004.

Pascal Fenkam, Mehdi Jazayeri, Gerald Reif. On Methodologies for Constructing Correct Event-Based Applications. In **Proceedings of the 3rd International Workshop on Distributed Event-Based Systems**, Edinburgh, Scotland, pages 38-43, May 2004.

Harald Gall, Jacek Krajewski, and Mehdi Jazayeri. CVS Release History Data for Detecting Logical Couplings. In **Proceedings of the International Workshop on Principles of Software Evolution (IWPSE)**, Helsinki, Finland, IEEE CS Press, pp. 13-23, September 2003.

Pascal Fenkam, Harald Gall, Mehdi Jazayeri: Constructing Deadlock Free Event-Based Applications: A Rely/Guarantee Approach. **FME 2003**: 636-657.

Pascal Fenkam, Harald Gall, Mehdi Jazayeri: Composing Specifications of Event Based Applications. **FASE 2003**: 67-86.

Pascal Fenkam, Harald Gall, Mehdi Jazayeri, and Christopher Kruegel, "DPS: An architectural Style for Development of Secure Software," **Proceedings of the Infrastructure Security Conference 2002**, Springer Verlag, Bristol October, 2002.

Martin Pinzger, Michael Fischer, Harald Gall, and Mehdi Jazayeri, "Revealer: A lexical pattern matcher for

architecture recovery," **Proceedings of the 9th Working Conference on Reverse Engineering**, Richmond, Virginia, October 2002. IEEE Computer Society Press, Los Alamitos, CA.

Mehdi Jazayeri, "On the way to pervasive computing," (invited paper) **Proceedings of XVI Brazilian Symposium on Software Engineering (SBES'2002)**, Rio Grande do Sul – Brazil, October 16-18, 2002.

Mehdi Jazayeri, "Software Components: Pervasive Challenges," (invited paper) **Proceedings of Radical innovations in Software Engineering of the Future (Monterey 2002)**, Venice, Italy, October 7-11, 2002.

Pascal Fenkam, Harald Gall, and Mehdi Jazayeri, "Visual requirements validation: Case study in a Corba-supported environment," **Proceedings of the IEEE Joint International Conference on Requirements Engineering**, pp. 81-88, IEEE Computer Society Press, Los Alamitos, CA, September 9-13, 2002.

Roman Kurmanowytsch, Mehdi Jazayeri, and Engin Kirda, "Towards a hierarchical, semantic peer-to-peer topology," **Proceedings of Second International Conference on Peer-to-Peer Computing (P2P-2002)**, pp. 167-168, IEEE Computer Society Press, Los Alamitos, CA. September 5-7, 2002.

Pascal Fenkam, Harald Gall, and Mehdi Jazayeri, "Constructing CORBA-supported test oracle: case study in automated software testing," **Proceedings of the 17th IEEE Automated Software Engineering Conference**, IEEE Computer Society Press, Los Alamitos, CA. September, 2002.

Ivana Podnar, Manfred Hauswirth, and Mehdi Jazayeri, "Mobile push: delivering content to mobile users," Proc. The 22nd International Conference on Distributed Computing Systems Workshops, **International Workshop on Distributed Event Based Systems**, pp. 563-568, IEEE Computer Society Press, Los Alamitos, CA, July 2002.

Mehdi Jazayeri, "On architectural stability and evolution," (invited paper) **Proceedings of Reliable Software Technologies, Ada-Europe 2002**, pp. 13-23, Lecture Notes in Computer Science 2361, Springer-Verlag, 2002.

Engin Kirda, Clemens Kerer, Mehdi Jazayeri, Harald Gall, and Roman Kurmanowytsch, "The evolution of an organizational web site: Migrating to XML/XSL. **3rd International Workshop on Web Site Evolution**, *ICSM 2001*, Florence, Italy, 6-10 Nov., 2001. IEEE Computer Society Press.

Clemens Kerer, Engin Kirda, Mehdi Jazayeri, and Roman Kurmanowytsch, "Building XML/XSL-Powered Web Sites: An Experience Report," **Proceedings of the 25th International Computer Software and Applications Conference** (COMPSAC 2001) (Chicago, IL, USA). IEEE Computer Society Press, October 2001.

Engin Kirda, Clemens Kerer, and Mehdi Jazayeri, "Supporting Multidevice Enabled Web Services: Challenges and Open Problems," **10th IEEE Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises** (WETICE) (Boston, MA, USA). IEEE Computer Society, June 2001.

M. Hauswirth, M. Jazayeri, Z. Miklos, I. Podnar, E. Di Nitto, and A. Wombacher, "An Architecture for Information Commerce Systems," **Proceedings of ConTEL 2001 - 6th International Conference on Telecommunications** (Zagreb, Croatia, June 13-15, 2001), June 2001.

Manfred Hauswirth, Mehdi Jazayeri, and Markus Schneider, "A Phase Model for E-Commerce Business Models and its Application to Security Assessment," **Proceedings of the 34th Hawaii International Conference on System Sciences**, Maui, Hawaii - January 3-6, 2001.

Mehdi Jazayeri and Ivana Podnar, "A Domain and Business Model for Information Commerce," **Proceedings of the 34th Hawaii International Conference on System Sciences**, Maui, Hawaii - January 3-6, 2001.

Mehdi Jazayeri and Wolfgang Lugmayr, "Gypsy: A Component-based Mobile Agent System," **Proceedings of the 8th Euromicro Workshop on Parallel and Distributed Processing (PDP2000)**, Rhodos, Greece, January 19-21, 2000.

M. Hauswirth and Mehdi Jazayeri, "A component and communication model for push systems," **Proceedings of the Joint European Software Engineering Conference and the ACM Symposium on the Foundations of Software Engineering (ESEC/FSE '99),** pp. 20-38, Lecture Notes in Computer Science 1687, Springer-Verlag, Toulouse, France, September 6–10, 1999.

"Visualizing software release histories: the use of color and third dimension," with H. Gall, K. Riva, **Proceedings of International Conference on Software Maintenance (ICSM '99)**, pp. 99-108, Oxford, England, IEEE Computer Society Press, September 1999.

"Application of information visualization to the analysis of software release histories," with H. Gall and C. Riva, **Proceedings of Joint EUROGRAPHICS - IEEE TCCG Symposium on Visualization (VisSym '99),** Vienna, Austria May 26-28, 1999.

"A Java-based environment for teaching programming language concepts," with M. Hauswirth, A. Winzer, **Proceedings of Frontiers in Education (FIE '98)**, Tempe, Arizona, November 4–7, 1998.

"Detection of logical coupling based on product release histories," with H. Gall, K. Hajek, **Proceedings of International Conference on Software Maintenance (ICSM '98)**, Washington, D. C., IEEE Computer Society Press, November 1998.

"Predicting development cost of security in distributed software," with W. H. Prentner, **Proceedings of the IFIP TC11 14th International Conference on Information Security (SEC '98)**, 31 August – 2 September, 1998, Vienna and Budapest, pp 535–541.

"Software Evolution Observations Based on Product Release History," with H. Gall, R. Klösch, G. Trausmuth, **Proceedings of International Conference on Software Maintenance (ICSM '97)**, Bari, Italy, IEEE Computer Society Press, September 1997 (***winner of best paper award***).

"The architectural style of component programming," with H. Gall, R. Klösch, G. Trausmuth, **Proceedings of IEEE Compsac '97**, Washington, DC, August 13–15, 1997.

"Consideration of distribution and parallelism in software design," with Flavio De Paoli, **Proceedings of the Second World Conference on Integrated Design and Process Technology,** Austin, Texas, December 1–4, 1996.

"Architecture recovery in ARES," 2nd International Architecture Workshop (ISAW-2), San Francisco, California, October 1996, pp 111-115.

"Design concepts as a basis for organizing software libraries," with Georg Trausmuth, **Proceedings of the 1996 ACM Symposium on Applied Computing,** Philadelphia, Pennsylvania, February 17–19, 1996.

"Component programming—a fresh look at software components," **Proceedings of the 5th European Software Engineering Conference,** Sitges, Spain, September 25–28, 1995.

"Research directions in software reuse: where to go from here?" with H. Gall and R. Klösch, **Proceedings of the ACM SIGSOFT Symposium on Software Reusability (SSR '95),** Seattle, Washington, April 28–30, 1995.

"VIZIR: an integrated environment for distributed program visualization," with M. Hao, A. Karp and A. Waheed, **Proceedings of the International Workshop on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOT '95),** Durham, North Carolina, Jan. 18–20, 1995.

"A meta-process for software reuse process discovery and evolution," with Pankaj Garg and Michael Creech, **Proceedings of the 6th Annual Workshop on Software Reuse (WISR'93),** Oswego, NY, Nov. 2-4, 1993.

"P^{3}M: A virtual machine approach to massively parallel computing," with Fabrizio Baiardi, **Proceedings of the IEEE 1993 International Conference on Parallel Processing,** St. Charles, Ill., Aug. 16-20, 1993.

"Pisa Parallel Processing Project on general-purpose highly-parallel computers," (coauthored), **Proceedings of the IEEE Fifteenth International Computer Software and Applications Conference,** Tokyo, Sept. 11-13, 1991.

"Architectural models and design methodologies for general-purpose highly-parallel computers," (coauthored), **Proceedings of the 5th Annual European Computer Conference (CompEuro 91),** Bologna, May 13-16, 1991.

"P^{3}M: An abstract architecture for massively parallel machines," (coauthored), **Proceedings of the Workshop on Abstract Machine Models for Highly Parallel Computers,** pp. 39-47, Leeds, March 25-27, 1991.

"Development of a partitioned, replicated data server in FLAME," with Flavio De Paoli, **Proceedings of the IEEE 1990 International Conference on Parallel Processing,** St. Charles, Ill., Aug. 13-17, 1990.

"FLAME: a language for distributed programming," with Flavio De Paoli, **Proceedings of the IEEE 1990 International Conference on Computer Languages,** New Orleans, March 12-16, 1990.

"Objects for distributed systems," **Proceedings of the ACM SIGPLAN Workshop on Object-Based Concurrency, SIGPLAN Notices 24**(4): 117-119, February 1989.

"The role of a debugger in system development," **Preprint of the Proceedings of the ACM SIGSOFT/SIGPLAN Symposium on High-Level Debugging,** 212-217, March 1983.

"Syntax-directed symbolic execution," with Carlo Ghezzi, **Proceedings of the IEEE Fourth International Computer Software and Applications Conference,** pp. 539-545, Chicago, Illinois, October 1980.

"A space improvement in the alternating semantic evaluator," with Diane Pozefsky, **Proceedings of the ACM Annual Conference,** pp. 498-504, Nashville, Tennessee, October, 1980.

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