

Curriculum Vitae

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1 Academic background

Degrees. Doctor of Philosophy (Ph.D.), May 1989, and Master's of Science (M.S.), May 1986, in computer science, Rutgers University, New Jersey.

Graduate education (1983-89). *Rutgers University — The State University of New Jersey*, USA (Sep. 1983 – May 1989): M.S. and Ph.D. degrees in computer science; accumulated grade point average 3.97 for M.S. and Ph.D. programs, on a scale from 4.0 to 0.0 (no ranking available).

Undergraduate education (1980-83). *Technische Universität München*, Germany (Oct. 1980 – July 1983): passed comprehensive mid-program exams (Vordiplom) with grade point average of 1.3 on a scale from 1.0 to 5.0 (ranked 2nd out of 180).

High school/Gymnasium (1971-80). Mathematics/natural science line at Joseph-Hofmiller Gymnasium, Freising, Germany; grade point average of 1.0 on a scale from 1.0 to 5.0 in the final 2 years (ranked top-10 in the State of Bavaria for the year 1980).

2 Employment history

2002. Professor of computer science with special obligations in programming languages (professor med særlige opgaver) (Aug. 1, 2002- July 31, 2007) at DIKU, University of Copenhagen.

1999-present. Associate professor of computer science (lektor i datalogi) at at the newly established *IT University of Copenhagen (ITU)* (since June 1999). Involved in a large variety of activities from the start of the institution to its current (Spring 2002) size with ca. 30 Ph.D. students and 1400 Master's of Science, Master's, diploma and single-course students in 5 programs, ca. 70 courses offered, 20 full-time faculty employed at the 'core' of ITU, 100 faculty at cooperating institutions and part-time faculty, 4 research departments. Specifically, responsible for definition, establishment and operation of Master of Science and Master's program in software development (1999-2000); chairman of original central Board of Studies for ITU appointed by ITU's Board of Directors, primarily responsible for drafting and authoring original study rules for all 6 Master of Science, Master's and Diploma programs, coordination with study boards at cooperating institutions (1999-2000). Member of ITU management group (1999-2000), of Ph.D. Board of Studies (1999-present); initiator and main organizer of scientific visitor and talk program at ITU (1999-present); initiator (and inventor of name) of popular, broad-spectrum 'BuzzTalk' program of weekly talks (1999-2000); member/head of various ad-hoc committees. Member of Department of Innovation since establishment of research departments at ITU (2000-present).

1998-2002. Co-founder, partner and (since 2000) director of Hafnium ApS (www.hafnium.com), a research-based programming language technology company (spin-off from SNF project DART). Co-developer of AnnoDominiTM, a software tool and method for the Year 2000 conversion of COBOL applications, marketed and sold by Computer Generated Solutions, Inc., of New York City, New York (www.cgsinc.com). Project manager of Year 2000 conversion project of ERP system at Rambøll, a major Danish engineering firm (1999).

1995-present. Associate professor (lektor) at *Datalogisk Institut, Københavns Universitet (DIKU)* (since July 1995, on leave since June 1999).

1992-95. Assistant professor (adjunkt) at DIKU. See below.

- 1991-92.** Researcher at DIKU (January 1991 – June 1992). Employed by ESPRIT Project Semantique on semantics-based program manipulation. Work on type disciplines (dynamic typing) and type-based program analyses (binding-time analysis, tagging optimization).
- 1990.** Associate research scientist at *Courant Institute of Mathematical Sciences, New York University (NYU)* (June 1990 – Dec. 1990). Internal co-ordination of activities in the common prototyping language project Griffin and collaboration on all aspects of programming language design (type system, transaction model, persistent storage, tasking and synchronization, visibility, *etc.*).
- 1989-90.** Temporary assistant professor (tijdelijk universiteitsdocent) during post-doctoral visit at *Vakgroep Informatica, Rijksuniversiteit Utrecht (RUU)* (Sep. 1989 – May 1990). Participation in Dutch project STOP (Specification and Transformation of Programs). Worked on computational complexity of type inference, semi-unification and transformational programming.
- 1987-89.** Assistant research scientist at *Courant Institute of Mathematical Sciences, New York University (NYU)* (Feb. 1987 – June 1989). In charge of developing a strong typing model for the programming language SETL2. Worked on polymorphic type inference, semi-unification, design criteria and design decisions for SETL2.
- 1988.** Visiting scientist at *IBM T.J. Watson Research Center, Hawthorne, New York* (July 1988 – Sep. 1988). Worked in the foundations of programming languages group on the connections of type checking and unification-like problems.
- 1984-86.** Research assistant at *Rutgers University – The State University of New Jersey* (June 1984 – May 1985 and June 1986 – Aug. 1986). Participation and contributions in the RAPTS program transformation project.

3 Research

3.1 Research contributions

Published contributions in software reengineering; type-based program analysis; algorithmic, logical, complexity-theoretic and semantic aspects of type systems; polymorphic type inference; semi-unification; programming models; program transformation.

See Scientific Record.

3.2 External funding

- 2001-present.** Co-principal investigator in Navision/ITU research cooperation project NEXT (Next generation software technology for enterprise resource planning systems.)
- 2000-2002.** Co-investigator in SNF Project PLT (Programming Language Technology).
- 1994-99.** Partner in SNF/PIFT Project DART (Design and Reasoning about Tools).
- 1991.** Participation in preparation of funding proposal for ESPRIT Project Semantique II (Oct. 1991).
- 1989.** Contributed part of funding proposal for Project Griffin at NYU, part of DARPA Pro-tech effort (June 1989).

4 Teaching

4.1 Formal qualifications

1993. Completed pedagogical seminar on *Teaching and Learning in Higher Education* at University of Copenhagen.

4.2 Courses

2002-present. Teacher and co-teacher at DIKU for graduate courses and seminars:

- Seminar on distributed and mobile data and software (organizer, co-teacher, Fall 2002)

1999-2002. Teacher at ITU for graduate courses:

- Functional Design and Programming (teacher, Spring 2000, Fall 2000)
- Object-oriented programming (co-teacher, responsible for course, Spring 2001)
- Introduction to programming (teacher, Fall 2001 and Spring 2002)
- Distributed Systems (co-teacher, Fall 2001)
- Database Systems (curriculum developer and backstop, Spring 2000—Spring 2001)
- Advanced object-oriented programming (backstop, Spring 2001)
- Language-based security (organizer, Ph.D. short course, June 2001)

1991-1999. Teacher and co-teacher at DIKU for graduate and undergraduate courses and seminars:

- Theory of Objects (Spring 97, Spring 99)
- Introduction to computer science (DAT0), specifically functional data structures and algorithms and modular programming (Fall 98/Spring 99)
- Programming languages: Concepts, constructs and semantics (Fall 1997)
- Advanced Seminar on Subtyping (Spring 96)
- Introduction to operational semantics (part of mandatory 3rd year undergraduate course) (Fall 93, Fall 94, Fall 95/Spring 96)
- Advanced topics in type inference and program analysis (Spring 92, Spring 94, Spring 95)
- Introduction to Semantics (Fall 92, Fall 93, Fall 94)
- Seminar on Lambda Calculus (Fall 92)
- Research seminar on current topics in programming languages (Fall 92)
- Denotational semantics (Fall 91)
- Computer science pearls (individual lectures in Fall 1995, Fall 1996, Fall 1997)

1989-90. Teacher at RUU for two senior level seminars:

- Algorithmic program transformation (Fall 89), and
- Type systems for programming languages (Spring 90).

1989. Co-teacher at NYU for graduate course “Foundations of programming languages” (Spring 89).

1985-86. Teaching assistant at Rutgers University for four graduate courses: compilers and programming languages I (Fall 85), foundations of computer science (Fall 85), compilers and programming languages II (Spring 86), computational complexity theory (Spring 86); and one senior level course: software engineering (Fall 86).

5 Advising

5.1 Ph.D. theses

2000-present. Michael Florentin Nielse, ITU. Project title: “Staged computation”.

2000-2001. Erik van der Meer, ITU. Project title: “Distributed functional programming”. As of 2002 supervised by Henrik Reif Andersen due to change in project to verification and model checking.

1997-2001. Henning Niss, DIKU. Ph.D. thesis: “Regions are Imperative – Unscoped regions and control-sensitive memory management”. Submitted december 2001, successfully defended Feb. 2002. Partner in Hafnium ApS.

1995-98. Jakob Rehof, DIKU. Ph.D. thesis: “The Complexity of Simple Subtyping”, June 1998. Since July 1998 employed as research scientist at Microsoft Research, Redmont, Washington.

1994-97. Christian Mossin, DIKU. Ph.D. thesis: “Flow Analysis for Higher-Order Typed Programming Languages”, January 1997. Partner in Hafnium ApS, and employed as software tools developer at Maconomy A/S (major Danish ERP systems producer).

1993-96. K. Jesper Jørgensen, DIKU. Ph.D. thesis: “A Coercion Theory for Polymorphic Lambda Calculus”, June 1996. Assistant professor at Royal Veterinary and Agricultural University in Copenhagen (KVL) (1996-1998), now software developer at Nykredit (major Danish financial services company).

5.2 Master’s theses

2002. Kasper Bøgebjerg Pedersen, ITU, Jesper Tejlgaard Pedersen, DTU. “Value-oriented peer-to-peer middleware for storing and retrieving XML documents”. Master’s thesis project, due November 2002.

2002. Troels Nordfalk, ITU. “Parsing C++”. Master’s thesis project, due August 2002, due December 2002.

2002. John Erik Knudsen, ITU. “A compiler for region-based Java”. Master project, due November 2002.

2001-present. Ole Bue Lond, Jakob Rauhe, ITU. “Next-generation loosely coupled ERP”, Master’s thesis project, June 2002.

2001. Jakob Bendsen, Rasmus Lund, ITU. “Design of a software architecture for distributed information systems based on Java enterprise technology” (Master of Science thesis, software development program)

1998-99. Esben Kragh Hansen, DIKU. Master’s thesis project: “Efficient checkpointing of Java threads” (candidate for best Danish computer science Master’s thesis, 1999; unpublished due to intellectual property considerations).

- 1998-99.** Lars Haupt-Hansen, DIKU. Master’s thesis project: “Reasoning about object memory behavior”.
- 1998-1999.** Bo Kjellerup, DIKU. Master’s thesis: “Normalization of first-order logic proofs in Isabelle”.
- 1998.** Morten V. Christiansen and Per Velschow, DIKU. Master’s thesis: “Region-Based Memory Management in Java” (candidate for best Danish computer science Master’s thesis, 1998).
- 1997-98.** Soheila Veisheh, DIKU. Master’s thesis: “Run-Time Code Generation for Image Processing”, in Danish. Co-advised with Jens Damgaard Andersen at DIKU.
- 1997-98.** Gordon Gran, DIKU. Master’s thesis: “A Type-Theoretic Approach to Conditional Types”.
- 1997.** Michael Brandt, DIKU. Master’s thesis: “Recursive Subtyping: Axiomatizations and Computational Interpretations”.
- 1997.** Henning Niss, DIKU. Master’s thesis: “An Unfold/Fold Framework for First-Order Hereditary Harrop Formulas: Transformations and Correctness Proofs” (candidate for best Danish computer science Master’s thesis, 1997).
- 1994-95.** Jakob Rehof, DIKU. Master’s thesis: “Polymorphic Dynamic Typing — Aspects of Proof Theory and Inference”, March 1995. Awarded prize as best computer science Master’s thesis in Denmark in 1995 by Dansk Selskab for Datalogi.
- 1992-93.** Christian Mossin, DIKU. Master’s thesis: “Polymorphic Binding-Time Analysis”.

5.3 Student projects

- 2002.** Design and implementation of Java-based client/server web applications, chat rooms (4 groups, Spring 2002)
- 2001.** Anders Baumann, Mikkel Fennestad Christensen, Tine Thorn, “A value-oriented XML Store”. (Fall 2001)
- 2001.** Maibritt Larsen, Janus Friis, Mikkel Pedersen, Kristian Munkholm, “File manager service with structural compression” (Fall 2001).
- 2001.** Cathrine Kvåle, Ene Rammer Nielsen; Birgit Nielsen, Galina Hansen, Signe Ellegaard Borch, Annalisa Pedersen; Jane Jakobsen, Pia Eder, Jens Bjoerholm, Bjørn Wahlberg, Michael Koefoed-Hansen; Lise Lotte Hansen, Marianne Harck, Kira Hoegh, Karen Jørgensen; Daniel Sutherland, Anders Møller, Kim Bonde, Niels Grau; Kinnie Bak Pedersen, Katrine Olin, Pernille Kruse; Asem Butt, Mohammad M. Haq. Design and implementation of Java-based client/server web applications (7 groups, Fall 2001)
- 2001.** Christian Nielsen, Mette Jaquet, Rune Holm, Jette Wandel Hansen, “Non-linear best fit and Extreme Programming”.
- 2001.** Ole Bue Lond, Jakob Rauhe, “XML technology for Maconomy’s print and display description languages”
- 2001.** Thorkild Aagaard, “Functional design and programming for simple web service”

- 2001.** Mikkel Fge Jensen, Kristian Fge Jensen; Christina Hastrup, Jesper Linvald, Nikolas Dragsdorff; Katja Rudloff, Halina Tonaszewska, Louise Kragh, Luise Sr; Paul Kjr, Mikkel Heisterberg Andersen, Poul Erik Stenger; Kasper Kock, Ulf Toke, Jon Larsen: Basic programming projects (design and implementation of Java-based web applications) (5 groups, Spring 2001)
- 2000.** Jakob Bendsen, Jack Ekman, Rasmus Lund, Troels Nordfalk, “Enterprise JavaBeans: Analysis of a Software Component Framework”
- 1998.** Lars Haupt-Hansen, “An Axiomatization of the Subtype Relation of a First-Order Object Calculus”.
- 1996.** Dimitri Graedel, “Run-Time Code Generation Applied to Basic Image Processing Routines — A Case Study”.
- 1996.** Soheila Veisheh, “Translation of Annotated Scheme Programs”.
- 1995-96.** Peter Møller Neergaard, “Implementation of Operational Semantics”.
- 1995.** Michael Brandt, “Coinductive Axiomatization of Recursive Type Equality”.
- 1994.** Jacob Frost, “On Formal Verification of a Type Inference Algorithm”.
- 1994.** Jens Kruse Andersen, “Semantics of Dynamically Typed Lambda Calculus”.
- 1993.** Jakob Rehof and Morten Heine Sørensen, “The Curry-Howard Isomorphism and Classical Logic”.

6 Evaluations

6.1 Faculty positions

- 1999.** Head of evaluation committee for (first) 13 permanent and adjunct faculty positions at ITU.
- 1999-2000.** Letters of recommendations for 1 professor position and 1 tenure/promotion case.
- 1996.** Member of evaluation committee for associate professor position within Intelligent Systems at Roskilde University.

6.2 Funding proposals

- 1990-2002.** US National Science Foundation (4 proposals and 2 white papers), Dutch National Research Council (1 proposal), Swedish National Research Council (TFR, 3 proposals).

6.3 Ph.D. theses

- 2002.** External discussion leader for Josef Svenningsson’s licentiate thesis, October 2002, Chalmers University of Technology.
- 2002.** External evaluator for Keith Wansbrough, “Simple Polymorphism for Usage Analysis”, Ph.D. thesis, September 2002, Cambridge University.

- 2002.** External evaluator for Anders Møller, “Program Verification with Monadic Second-Order Logic and Languages for Web Service Development”, Ph.D. thesis, September 2002, BRICS/DAIMI, University of Aarhus.
- 2002.** External evaluator for Simon Helsen, “Region-based Program Specialization — An Operational Approach to Polymorphic Offline Partial Evaluation for ML-like Languages”, Ph.D. thesis, September 2002, University of Freiburg.
- 2001.** External evaluator for Zhe Yang, “Language Support for Program Generation — Reasoning, Implementation and Applications,” Ph.D. thesis, August 2001, New York University
- 2001.** External evaluator for Lasse Nielsen, “A study of defunctionalization and continuation-passing style,” Ph.D. thesis, August 2001, BRICS/DAIMI, University of Aarhus
- 1999.** External evaluator for Johan Nordlander, “Reactive Objects and Functional Programming”, Ph.D. thesis, Chalmers Institute of Technology.
- 1998.** External evaluator for Ole Ildsgaard Hougaard, “The CLP(OIH) Language”, Ph.D. thesis, University of Aarhus.
- 1997-98.** External evaluator and examiner for Dilip Sequeira, “Type Inference with Bounded Quantification”, Ph.D. thesis, University of Edinburgh, November 1997 and June 1998.
- 1992.** External evaluator for Niels Jørgensen, “Abstract Interpretation of Constraint-Logic Programs”, Ph.D. thesis, Roskilde University, November 1992.

6.4 Master’s theses, bachelor projects and student reports

- 2002.** 3 person Master’s thesis, “Static Bounds on Memory Usage in Java Programs”, Aarhus University, June 2002.
- 2002.** Søren Frøkjær Thomsen, Lars Rye Jeppesen, DIKU, “Generational, Distributed Garbage Collection for Emerald”, April 2002.
- 2001.** 3 DIKU bachelor projects.
- 2001.** DTU midprogram project, “Program til fremstilling af ’ simulationer”, February 2001.
- 2000.** Jesper Steen Møller, DIKU, Master’s thesis.
- 2000.** DTU midprogram project, “Netauktion”, October 2000.
- 1999.** Rene Rasmussen, Aalborg University, Master’s project: “Congruence properties and co-induction in the σ -calculus”.
- 1999.** Peter Bertelsen, KVL, “Binding-time analysis for a JVM core language”.

6.5 Other evaluations

- 2001-2002.** External evaluator on written exams and project reports in undergraduate course on computer architecture and compilers, DIKU.
- 2001.** External evaluator on written exam in graduate course on program transformations, DIKU.
- 2001.** Carl Christian Frederiksen, DIKU: “Termination analysis”, DIKU.

- 2000.** External evaluator on written exams in undergraduate course on programming languages, DIKU.
- 1999.** Ph.D. proposal defense by Zhe Yang, “Multi-stage programming”, Courant Institute of Mathematical Sciences, New York University.
- 1998.** Evaluation of submission on space efficient byte code verification of Java Virtual Machine code, for the Gold Medal of the University of Copenhagen.
- 1996, 1997, 1999, 2002.** Evaluation of candidates for Ph.D. fellowship at the Faculty of Science, University of Copenhagen.

7 Management and administration

- 2001.** Head of ad-hoc committee on programming courses at ITU.
- 2000-present.** Founder and organizer of FunTechs and FooTech series (with ca. 30 talks/year); see funtechs.org. (FooTech together with Kasper Østerbye.)
- 2000-2001.** University liaison at ITU vis a vis Microsoft.
- 1999-present.** Member of Ph.D. Board of Studies, ITU.
- 1998-2002.** Member of board of directors of Hafnium ApS, since 2000 director. Participated in all phases of company start-up and management, including finances, management, marketing, customer relations, legal affairs. Responsible for follow-up on contracts and liquidation of company.
- 2000.** Member of management team at ITU.
- 2000.** Head of central Board of Studies at ITU, appointed by Board of Directors. Responsible for drafting and authoring study rules for all 6 Master of Science, Master’s and Diploma programs, coordination with study boards at cooperating institutions at Roskilde University and Copenhagen Business School, operational procedures, hiring of adjunct faculty and teaching assistants, daily operations.
- 2000.** Conducted management training course at SLH, Denmark.
- 1999-2000.** Head of Robolab at ITU (Lego robots). Still used during introduction week for new students.
- 1999-2000.** Head of Master of Science and Master’s program in software development. Responsible for defining program, establishing courses, information materials, advertising, daily operations.
- 1999.** Initiator co-organizer of DIKU/Baan cooperation on joint Master’s thesis projects.
- 1998-99.** Member of department board (bestyrelsen) at DIKU. The Board is responsible for the department’s strategic development, including budgetary responsibilities.
- 1993-98.** Member of computing equipment committee (maskinudvalget) at DIKU, from October 1994 as chairman. Responsible for strategic development, deployment and acquisitions of equipment, mainly computing hardware and software, for DIKU.

- 1991-92.** Organizational contributions to programming language group at DIKU: contributions to funding proposals (DART and Semantique projects), computing equipment needs, management of programming language conference listings.
- 1987-89.** Co-organizer of weekly programming language seminar at NYU. Coordinator for weekly language design meetings of the SETL Project.
- 1984-86.** Treasurer (Sep. 1984 – Aug. 1985) and president (Sep. 1985 – Aug. 1986) of the *computer science graduate students' society (CSGSS)* at Rutgers University. Coordination of all CSGSS activities such as budgeting, (annual) department-wide faculty research colloquia, review of faculty candidates, weekly graduate student/faculty gatherings, *etc.*

8 Scholarships

- 1983-84.** *Fulbright Scholarship* (Aug. 1983 – Aug. 1984). Academic exchange scholarship awarded by the US/German Fulbright Commission, Bonn, for a one-year visit in the United States.
- 1981-85.** *Evangelisches Studienwerk e.V.* (Sep. 1981 – Sep. 1985). German national university scholarship awarded after two semesters at TUM.
- 1980-85.** *Bayerisches Begabtenförderungsgesetz (“Hundhammer Stipendium”)* (Nov. 1980 – Mar. 1985). University scholarship awarded by the state government of Bavaria for achievements in high school (Gymnasium).

9 Professional activities

9.1 Professional positions

- 2000-present.** Member of corps of external evaluators (censorcorps) for computer science in Denmark.
- 1997-2001.** Member of Board of European Association for Programming Languages and Systems (EAPLS), with special responsibility for international relations. EAPLS is a Europe-based professional organization for programming language researchers.
- 1997-99.** Member of Executive Committee of ACM Special Interest Group on Programming Languages (SIGPLAN), with special responsibility for international relations. SIGPLAN is the largest professional organization for researchers and professionals working on programming languages and systems.
- 1997-99.** Member of Editorial Board of European Research Consortium in Informatics and Mathematics (ERCIM), which publishes the quarterly ERCIM News. ERCIM is a consortium of 15 research institutions within information technology from 15 European countries.

9.2 Service on program committees, incl. refereeing

- 2001.** *2nd Symposium on Programs as Data Objects (PADO-II), 2001.*
- 2000.** *Conference on Foundations of Software Science and Computation Structures (FOSSACS) 2000.*

- 1999. *24th International Symposium on Mathematical Foundations of Computer Science (MFCS) 1999.*
- 1999. *3rd Latin American Conference on Functional Programming (CLAPF) 1999.*
- 1998. *IEEE Computer Society International Conference on Computer Languages (ICCL) 1998.*
- 1998. *Static Analysis Symposium (SAS) 1998.*
- 1997. *Static Analysis Symposium (SAS) 1997.*
- 1997. *9th International Symposium on Programming Languages: Implementations, Logics, Programs (PLILP) 1997.*
- 1997. *Workshop on Implementation of Functional Languages (IFL) 1997*, refereed proceedings published by Springer-Verlag as part of Lecture Notes in Computer Science.
- 1996. *8th International Symposium on Programming Languages: Implementations, Logics, Programs (PLILP) 1997.*
- 1996. *ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI) 1996.*
- 1995. *Workshop on Types in Program Analysis (TPA) 1995*, Aarhus, Denmark, May 1995.
- 1995. *ACM SIGACT-SIGPLAN Symposium on Principles of Programming Languages (POPL) 1995*, San Francisco, California, January 1995.

9.3 Service on organizing committees

- 2001-2002. Member of organizational committee, teacher at Duszynski Zdroj Summer School on Foundations of Internet Security (SeJune 2002).
- 2001. Chairman of Workshop on Semantics, Program Analysis and Computing Environments for Memory Management, London, UK 2001 (SPACE 2001).
- 1997. General co-chair for *ACM SIGACT-SIGPLAN Symposium on Principles of Programming Languages (POPL) 1997*, to be held in Europe in January 1997.
- 1995. Book exhibits chair for *ACM SIGPLAN Symposium on Programming Language Design and Implementation (PLDI)*, *ACM SIGPLAN Symposium on Partial Evaluation and Semantics-Based Program Manipulation (PEPM)* and *ACM Conference on Functional Programming Languages and Computer Architecture (FPCA)*, La Jolla, California, June 1995.
- 1994. Organizer for 3d Danish Applied Research Seminar, Copenhagen, Denmark, January 1994.
- 1993. Local arrangements chairman, with responsibility for all organizational tasks, for ACM Conference on Functional Programming Languages and Computer Architecture (FPCA), ACM SIGPLAN Workshop on State in Programming Languages (SIPL), ACM SIGPLAN Symposium on Partial Evaluation and Semantics-Based Program Manipulation (PEPM), Copenhagen, Denmark, June 1993.
- 1991. Co-organizer of the *NYU Partial Computation and Program Analysis Day* (June 21, 1991) at NYU, attended by researchers from four continents.

9.4 Professional memberships

- Association for Computing Machinery (ACM),
- Special Interest Group on Automata and Computability Theory (SIGACT),
- Special Interest Group on Programming Languages (SIGPLAN),
- Special Interest Group on Software Engineering (SIGSOFT),
- Special Interest Group on Management of Data (SIGMOD),
- Special Interest Group on Mobility (SIGMOBILE),
- European Association for Programming Languages and Systems (EAPLS),
- IFIP Working Group 2.8 on Functional Programming (appointed member).

10 Reviewing and refereeing

10.1 Refereeing for journals

- Acta Informatica,
- ACM Transactions on Programming Languages and Systems (TOPLAS),
- Information Processing Letters (IPL),
- Information and Computation (I&C),
- International Journal on Computer Languages (IJCL),
- Journal of Functional Programming (JFP),
- Journal of Symbolic Computation (JSC),
- Journal on Logic and Computation (JLC),
- LISP and Symbolic Computation (LASC),
- Mathematical Structures in Computer Science (MSCS),
- Nordic Journal of Computing (NJC),
- Software — Practice and Experience,
- Theoretical Computer Science (TCS),
- Theory and Practice of Object Systems (TAPOS).

10.2 Refereeing for conferences and workshops

- International Conference on Functional Programming (ICFP) 2002,
- Australian Computer Science Conference (ACSC) 1998,
- Conference on Automated Deduction (CADE) 1998,
- LISP and Functional Programming (LFP) 1994,
- Logic in Computer Science (LICS) 1992, 1997, 1998, 2000
- International Colloquium on Algorithms, Languages and Programming (ICALP) 1997,
- European Symposium on Programming (ESOP) 1992, 1994, 2001,
- Programming Language Implementation and Logic Programming (PLILP) 1991 and 1992,
- Functional Programming and Computer Architectures (FPCA) 1991,
- Partial Evaluation and Semantics-Based Program Manipulation (PEPM) 1991 and 1994,
- Glasgow Functional Programming Workshop 1991,
- International Conference on Computation and Information (ICCI) 1990,
- International Colloquium on Automata, Languages, and Programming (ICALP) 1992,
- International Conference on Computer Languages (ICCL) 1994,
- Workshop on Static Analysis (WSA) 1993,
- Symposium on Principles of Programming Languages (POPL) 1995, 1996, 1997, 1998, 2001
- ACM SIGPLAN Symposium on Programming Language Design and Implementation (PLDI) 1996, 1997, 1998, 1999, 2000
- Workshop on Types in Program Analysis (TPA) 1995,
- Mathematical Foundations of Computer Science (MFCS) 1999,
- ML Workshop (ML) 1992,
- ACM Symposium on Theory of Computing (STOC) 1997,
- Conference on Theoretical Aspects of Computer Science (TACS) 1997

See also “Service on program committees”.

10.3 Invited book review

1991. Review of Helmut Partsch, “Specification and Transformation of Programs”, Springer, Heidelberg, 1990, for Science of Computer Programming (see [5] below).

11 Invited talks and visits

- Invited visits with talks at: Aarhus University, AT&T Bell Laboratories, Chalmers Institute of Technology, Cornell University, University of Edinburgh, Glasgow University, IBM T.J. Watson Research Laboratory, Linköping University, New York University, Pennsylvania State University, Rice University, Rowan University, University of Essen, University of Munich, Utrecht University; plus other visits without talks.
- Invited workshop talks at: IFIP WG2.8 Workshop, Las Vegas, Nevada, March 2002; University of Washington/Microsoft Research Summer Workshop on Specifying and Checking Properties of Software, August 2001; IFIP WG2.8 Workshop, Aare, Sweden, April 2001; University of Washington/Microsoft Research Summer Institute on Technologies to Improve Software Development, August 1999; IFIP WG2.8 Workshop, Santa Cruz, California, January 1995; Workshop on Constraint-Based Program Analysis, Aarhus, Denmark, February 1994; IFIP WG2.8 Workshop, Rolighed, Denmark, June 1993; Santa Cruz, January 1995; Gothenburg September 1995; New Paltz, September 1996; Workshop on Program Analysis — Common Trends, Aarhus, 1995; 2nd Danish Applied Logic Seminar, Lyngby, Denmark, February 1993; Glasgow Functional Programming Workshop, Ayr, Scotland, July 1992; Workshop on Functional Programming, Compiler Technology, and Parallelism, Dagstuhl, Saarland, March 1992; Workshop on Program Analysis, Dagstuhl, Saarland, April 1999; Workshop on Parallel Algorithm Derivation and Program Transformation, New York, New York, August/September 1991; plus invited participation at other workshops.
- Invited summer school lectures at:
Duszynski Zdroj Summer School on Foundations of Internet Security (June 200). ACM State-of-the-Art Summer Schools on Functional and Object-Oriented Programming, Sobotka, Poland, September 1996 and Warsaw, July 1997.

12 Public communications

- 1998.** Appearances on Danish TV News (The Money Magazine) on researchers' intellectual property rights (October 8, 1998) and the Year 2000 Problem (April 16, 1998).
- 1996.** Debator on “Societal consequences of the information society”, organized by the Cross-Disciplinary Debate Forum at the University of Copenhagen.
- 1996.** Co-author of essay on the future of the information society, entitled “Drømmen om den tabte tid” (Dream of time lost).
- 1996.** Interview with Kristeligt Dagblad on visions for the future of information technology.
- 1996-1999.** Interviews on future technology trends and Year 2000 problem.

13 Personals

Date of birth: June 3rd, 1961
Place of birth: Freising, Fed. Rep. of Germany
Citizenship: German
Family status: married, 2 children
Parental leaves: Feb.-Apr. 1993
July-Sep. 1994

14 Scientific record

14.1 Refereed journal publications

- [1] Fritz Henglein. Breaking through the n^3 barrier: Faster object type inference. *Theory and Practice of Object Systems (TAPOS)*, 5(1):57–72, 1999. Invited paper selected from program of 4th Int'l Workshop on Foundations of Object-Oriented Languages (FOOL), January 1997, Paris, France. Expanded version version of conference paper [5].
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- [2] Fritz Henglein and Jakob Rehof. Constraint automata and the complexity of recursive subtype entailment. In *Proc. 25th Int'l Coll. on Automata, Languages and Programming (ICALP), Aalborg, Denmark*, volume 1443 of *Lecture Notes in Computer Science (LNCS)*, pages 616–627. Springer-Verlag, July 1998.
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- [22] Robert Paige and Fritz Henglein. Mechanical translation of set theoretic problem specifications into efficient RAM code — a case study. In *Proc. European Conference on Computer Algebra (EUROCAL), Linz, Austria*, pages 554–567. Springer, April 1985. Lecture Notes in Computer Science, Vol. 204.

14.3 Invited conference publications

- [1] Peter Harry Eidorff, Fritz Henglein, Christian Mossin, Henning Niss, Morten Heine Sørensen, and Mads Tofte. Annodomini: From type theory to year 2000 conversion tool. In *Proc. 26th Symp. on Principles of Programming Languages (POPL), San Antonio, Texas*., pages 1–14. ACM, ACM Press, 1999. Invited talk.
- [2] Peter Eidorff, Fritz Henglein, Christian Mossin, Henning Niss, Morten Heine B. Sørensen, and Mads Tofte. Annodomini in practice: A type-theoretic approach to the year 2000 problem. In *Proc. Symposium on Typed Lambda Calculus and Applications (TLCA)*. Springer-Verlag, April 1999.

14.4 Other publications

- [1] Fritz Henglein (chair), John Hughes, Henning Makhholm, and Henning Niss, editors. *Proc. Workshop on Semantics, Program Analysis and Computing Environments for Memory Management (SPACE)*, London, England, January 2001.
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14.6 Selected technical reports

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- [4] Malcom Harrison, Fritz Henglein, Chih-Hung Hsieh, and Konstantin Läufer. Polymorphism and type abstraction in the Griffin prototyping language. NYU ProtoTech Note, 1990.
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- [6] Fritz Henglein. Simple type inference and unification. Technical Report (SETL Newsletter) 232, Courant Institute of Mathematical Sciences, New York University, October 1988.

14.7 Selected unpublished papers

- [1] Fritz Henglein. Type-invariant simulation: A lower bound technique for the complexity of program analysis. In preparation.
- [2] Fritz Henglein. The role of η -conversion in type inference systems. In preparation.
- [3] Torben Amtoft and Fritz Henglein. Subtyping with parametric polymorphism: On the relation of qualified types to recursive types. Preliminary draft, Dec 1994.
- [4] Fritz Henglein. Semi-unification with idempotent substitutions. Unpublished Note, December 1994.
- [5] Fritz Henglein. Polymorphic type inference with references: Regions as types. Preliminary draft, May 1992.
- [6] Fritz Henglein. Preunification and precongruence closure: Algorithms and applications. Preliminary draft, September 1992.
- [7] Fritz Henglein. Feasible higher-order strictness analysis. Presented at Annual Glasgow Functional Programming Workshop, July 1992.

- [8] Fritz Henglein. A parallel semantics for SETL. Invited talk at Workshop on Parallel Algorithm Derivation and Program Transformation, New York University, August 30 – September 2 1991.
- [9] Fritz Henglein. A quadratic-time single point online closure analysis algorithm. Research notes, May 1991.
- [10] Fritz Henglein and Hans Leiß. On quasi-monadic semi-unification. Unpublished manuscript, January 1991.
- [11] Fritz Henglein. A simplified proof of DEXPTIME-completeness of ML typing. Manuscript, March 1990.
- [12] Fritz Henglein. On polymorphic type inference and semi-unification: Algebraic, computational, and conceptual results (technical summary). Unpublished.
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15 References

A list of personal references is available upon request.