Curriculum Vitae

Birger Møller-Pedersen

Personalia

Birger Møller-Pedersen, Professor
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Røahagan 33A, 0754 Oslo
Born: November 11, 1949, Rønne, Denmark.
Nationality: Danish.
Qualifications: Cand. scient. (M.Sc.) in Computer Science, Department for Computer Science, University of Aarhus, Denmark(1976).

Employment history

2004 -	Professor, University of Oslo
1997 - 2004	Principal Researcher, Ericsson Research, Software Technology – Norwegian Applied Research Center.
1995 - 1997	Senior Research Scientist, Telenor Research and Development.
1994 -	Part-time associate professor in computer science, University of Oslo, Norway.
1977 - 1995	Research Scientist, Norwegian Computing Center.

Recent scientific positions

1. Member of program committee ECOOP 2007
2. Member of program committee ECOOP 2006.
3. Member of program committee OOPSLA workshop on Domain Specific Modeling, 2005, 2006, 2007
4. Conference Chair, ECOOP 2004.
5. Member of program committee, Workshop on Domain Languages, OOPSLA 2004, 2005.
6. Member of program committee, Industrial Track <<UML>> 2004
7. Member of program committee OOPSLA 2003.
8. Telenor Nordic Research Prize (extra prize), 1997, Telenor.

Experience

Birger Møller-Pedersen has worked with object orientation dating back to the seventies, engaged in various implementations of Simula and involved in the design of the Beta programming language (with Kristen Nygaard, Ole Lehrmann Madsen and Bent Bruun Kristensen).

Together with Dag Belsnes he defined the first object oriented extension of SDL, and from 1989 he was involved in the standardization of this within ITU together with

Øystein Haugen, leading to SDL-92. For this work they received the Telenor Nordic Research Prize (extra prize) in 1997.

Later he was responsible for the Recommendation Z.109 on the combined use of UML and SDL, and for the SDL-2000 version he was responsible for introducing hierarchical state machines into SDL.

From 1995 until 1997 he was involved with the national research and technology transfer project SISU that resulted in a methodology for engineering real time systems.

From 1997 to 1998 he worked at Telenor R&D on the application of Java technology to network management.

From 1998 to 2003 he was with Ericsson, working as senior researcher, participating in the development of the next generation of UML (Unified Modelling Language) – UML2.0 within OMG (Object Management Group), working especially with structured classes and with responsibility for state machines and templates.

2003-2006 he was involved in the ITEA project Families, an European ITEA project on System Families working on the modeling of product families with the use of UML2.0.

Since 2004 Birger Møller-Pedersen has tenure as fulltime professor at the University of Oslo. He teaches the courses INF3110/4110 (Programming Languages) and INF5110 (Compiler Techniques).

He takes part in the following projects:
- SARDAS – A project funded by the Norwegian Research Council on "availability". The project has 4 research fellows.
- SWAT – A newly established project funded by Norwegian Research Council program STORFORSK. The project will have 4 research fellows.

Books (incl. edited book and chapters)
- O. Lehrmann Madsen, B. Møller-Pedersen, K. Nygaard: *Object oriented programming in the BETA programming language*. Addison Wesley 1993.
- Olsen, O. Færgemand, B. Møller-Pedersen, R. Reed & J.R.W. Smith: *Systems Engineering using SDL-92*, North-Holland 1994
- R. Bræk, Ø. Haugen, G. Melby and B. Møller-Pedersen: T*IMe – The Integrated Method* Electronic, hyperlinked Textbook, SISU and later SINTEF Telecom and Informatics. 1997 (on CD-ROM or Web: www.sintef.no/time)
- Haugen, Ø., B. Møller-Pedersen, and T. Weigert, *Structural Modeling with UML 2.0*, in *UML for Real*, L. Lavagno, G. Martin, and B. Selic, Editors. 2003, Kluwer Academic Publishers: Boston.
- Haugen, O., B. Møller-Pedersen, and T. Weigert, Use of UML for the Modelingof Embedded Systems, in Embedded Systems Handbook, R. Zurawski, Editor. 2005, CRC Press.

Scientific Papers

Monograph Contributions

- O.L. Madsen, B. Møller-Pedersen: *Design Principles behind the BETA Programming Language*. In Blair et.al. (eds) Object-Oriented Programming Systems. Pitman Publishing, 1989.
- B.B. Kristensen, O.L. Madsen, B. Møller-Pedersen, K. Nygaard: *Syntax Directed Program Modularization*. In: Interactive Computing Systems (ed. P. Degano, E. Sandewall), North-Holland, 1983.

Journal Papers

- B. Møller-Pedersen: *SDL combined with UML*. Telektronikk No. 4, 2000
- Møller-Pedersen, B., O. Haugen, and F. Belina, *Object-Oriented SDL*. Tele (Swedish Televerket's technical journal), 1991(1991/1).
- B. Møller-Pedersen, D. Belsnes, H.P.Dahle: *Rationale and Tutorial on OSDL: An Object-Oriented Extension of SDL*. Computer Networks, Vol. 13, No. 2, 1987.
- B.B. Kristensen, O.L. Madsen, B. Møller Pedersen, K. Nygaard: *Multisequential Execution in the BETA Programming Language*. Sigplan Notices, Vol. 20, No. 4, April 1985

Conference Papers/Proceedings (with review)

- Grønmo, R. and Møller-Pedersen, B.: *Aspect Diagrams for UML Activity Models*. The third International Workshop and Symposium on Applications of Graph Transformation with Industrial Relevance (AGTIVE 2007), Kassel 2007.
- Østerås K., and Møller-Pedersen, B. *Interfaces with traits*. Norsk Informatikk Konferanse, NIK´2007.
- B.B. Kristensen, O.L. Madsen, B. Møller-Pedersen: *The when, why and why not of the BETA programming language*. Third ACM SIGPLAN conference on History of programming languages 2007, San Diego, California.
- Shakari. P., and Møller-Pedersen, B.: *On the Implementation of a Tool for Feature Modeling with a Base Model Twist*. Norsk Informatikk Konferanse, NIK´2006.
- Haugen, O., and Møller-Pedersen, B.: *Modeling Variability - From Direct Modeling to Generative Modeling*. Norsk Informatikk Konferanse, NIK´2006.
- Haugen, O., B. Møller-Pedersen, and J. Oldevik. *Comparison of System Family Modeling Approaches*. SPLC 2005. 2005. Rennes, France: Springer LNCS 3714 p 102 – 112.
- Haugen, O., B. Møller-Pedersen, J. Oldevik, and A. Solberg. *An MDA-based framework for model-driven product derivation.* The eighth IASTED International Conference on Software Engineering and Applications. 2004. Cambridge, USA.: ACTA press p 709-714 0-88986-425-X.J.
- Fischer, E. Holz (Humboldt University) & B.Møller-Pedersen: *Structural and Behavioral Decomposition in Object Oriented Models*. ISORC (International Symposium on Object-oriented Real-time Systems)-2000
- David Garlan, John Knapman, Birger Møller-Pedersen, Bran Selic, and Thomas Weigert: *Modeling of Architectures with UML* ,<<UML>>2000, York 2000
- Haugen, Ø. and B. Møller-Pedersen. *JavaFrame - Framework for Java-enabled modelling*. in *ECSE2000*. 2000. Stockholm.

- B. Møller-Pedersen, and D. Nogva: *Scalable and Object Oriented SDL State(chart)s*. IFIP TC6/WG6.1 Joint International Conference on FORMAL DESCRIPTION TECHNIQUES (FORTE X), FORTE'99, Beijing 1999
- R. Bræk, and B. Møller-Pedersen: *Frameworks by means of virtual types – exemplified by SDL*. IFIP TC6/WG6.1 Joint International Conference on FORMAL DESCRIPTION TECHNIQUES (FORTE XI), FORTE'98, Paris 1998
- R. Bræk, Ø. Haugen, B. Møller-Pedersen: *A simple and practical Solution to the Inheritance of Behaviour of Statechart-like Specified Classes*. Norsk Informatikk Konferanse, NIK´96.
- B. Møller-Pedersen: *A Data Oriented Approach to the Specification of IN Services*. ICIN - International Conference of Intelligence in Networks. Bordeaux 12, Oct'94.
- Nyeng, B. Møller-Pedersen: *Approaches to the specification of Intelligent Network Services in SDL-92*. 6th SDL Forum, Darmstadt 1993, Proceedings North Holland 1993.
- S. Mazaher, B. Møller-Pedersen: *On the use of SDL-92 for the specification of Behaviour in OSI Network Management Objects*. 6th SDL Forum, Darmstadt 1993, Proceedings North Holland 1993.
- O.L. Madsen, B. Møller-Pedersen: *Part Objects and their Location*, TOOLS 91, Dortmund
- O.L. Madsen, B. Magnusson, B. Møller-Pedersen: *Strong Typing of Object Oriented Languages Revisited*. In Proceedings OOPSLA'90, Sigplan Notices, Nov. 1990.
- O.L. Madsen and B. Møller-Pedersen: *Virtual Classes --- A Powerful Mechanism in Object-Oriented Programming*. In Proceedings OOPSLA'89, Sigplan Notices, 1989.
- Reed, J.D. Man and B. Møller-Pedersen: *A Formal Techniques Environment for Telecommunications Software*. Seventh International Conference on Software Engineering for Telecommunication Switching Systems, SETSS 89 Conference Proceedings, Bournemouth, England 1989
- O.L. Madsen, B. Møller-Pedersen: *What Object-Oriented Programming may be --- and what it does not have to be*. In Proceedings of the Second European Conference on Object Oriented Programming, Oslo, August 1988. Lecture Notes in Computer Science, Vol. 322, Springer Verlag 1988.
- B.B. Kristensen, O.L. Madsen, B. Møller-Pedersen, K. Nygaard: *Coroutine Sequencing in BETA*. Hawaii International Conference on System Sciences, January 5-8, 1988
- B.B. Kristensen, O.L. Madsen, B. Møller-Pedersen, K. Nygaard: *Classification of Actions or Inheritance also for Methods*. In Proceedings of the First European Conference on Object Oriented Programming, Paris, 1987
- B.B. Kristensen, O.L. Madsen, B. Møller-Pedersen, K. Nygaard: *The BETA Programming Language*. In: B.D. Shriver, P.Wegner (ed.), Research Directions in Object Oriented Programming, MIT Press, 1987.
- B.B. Kristensen, O.L. Madsen, B. Møller-Pedersen, K. Nygaard: *An Algebra for Program Fragments*. Proceedings ACM SIGPLAN 85 Symposium on Programming Languages and Programming Environments, June 1985, Seattle, Washington.

- B.B. Kristensen, O.L. Madsen, B. Møller-Pedersen, K. Nygaard: *Abstraction Mechanisms in the BETA Programming Language*. In Proceedings of the Tenth ACM Symposium on Principles of Programming Languages, January 24-26 1983, Austin, Texas.

Workshops papers

- Ø. Myhre & B. Møller-Pedersen: *Platform for GDMO-based Java Management*. ECOOP '97 Workshop on Object-Oriented Technology for Telecommunications Service Engineering, Helsinki 1997.

Other (lecture notes, articles in newpapers, etc.)

- Haugen, Ø. and B. Møller-Pedersen. *SDL - a platform for telecom system development also in the future?* in *Ericsson and Telelogic, 4th User Group Conference*. 1998. Rome, Italy

Popular Scientific Papers:

- B. Møller-Pedersen & F. Belina: *Objekt-orienterat SDL*. Televerkets Tekniska Tidskrift Nr. 1, 1991.
- D. Belsnes, H. P. Dahle, B. Møller-Pedersen: *OSDL en Objekt-orientert utvidelse av SDL*. Nordisk Datanytt, Oktober 1987.
- O. Lehrmann Madsen, B. Møller-Pedersen: *Objekt-Orienteret Programmering* Nordisk Datanytt, Nr. 17 Dec. 1986

Tutorials

- Ø. Haugen, B. Møller-Pedersen Thomas Weigert: *How to successfully Leverage UML in Real-Time Applications: Using SDL and UML together*. Annual International Computer Software and Applications Conference – Compsac, Chicago October 2001.
- B. Møller-Pedersen: *Modellering og programmering for sanntidsanvendelser – UML og Java.* Det 54. Studiemøtet, Elektronikk og Data, 14-15 Juni 2001, Lillehammer.
- B. Møller-Pedersen: *SDL-92*. 1 day seminar, Bell Northern Research, Ottawa, March 1993.
- B. Møller-Pedersen: *Tutorial on Object Oriented SDL*. SDL Forum '91, Glasgow.
- O. Lehrmann Madsen, B. Møller-Pedersen & K. Nygaard: *An Introduction to BETA*. OOPSLA & ECOOP '90, 21-25 October 1990, Ottawa, Canada.
- B. Møller-Pedersen: *Tutorial on Object Oriented SDL*. IFIP TC6/WG6.1 Joint International Conference on Formal Description Techniques (FORTE III) '90, Madrid 1990.
- O. Lehrmann Madsen, B. Møller-Pedersen & K. Nygaard: *The BETA Programming Language – A Scandinavian Approach to Object-Oriented Programming*. OOPSLA '89, October 2-6, 1989, New Orleans, Louisiana.