

# Curriculum Vitae for Peter Sestoft

Updated 13 July 2010

## Name, Address and Nationality:

Peter Andreas Sestoft, sestoft@itu.dk, Kirkevej 29, DK-2920 Charlottenlund, Denmark. Tel. + 45 3964 6727  
Born June 25, 1962 in Hellerup, Denmark. Nationality: Danish

## Education:

1981–1988 MSc in Computer Science and Mathematics, University of Copenhagen  
1989–1991 PhD in Computer Science, University of Copenhagen

## Employment:

1992–1994 Assistant professor, Technical University of Denmark  
1995–2002 Associate professor, Royal Veterinary and Agricultural University, Denmark  
2002–2007 Professor mso, Royal Veterinary and Agricultural University, and IT University of Copenhagen.  
1999–2008 Associate professor, IT University of Copenhagen, Denmark  
Sept 2008– Professor, IT University of Copenhagen, Denmark  
2009–2014 Adjunct professor, Faculty of Life Sciences, University of Copenhagen

## Computer science interests:

Theory, implementation and principles of managed object-oriented programming languages, and of functional languages including spreadsheets. Abstract machines. Partial evaluation, abstract interpretation, program transformation. Software development and construction. Bioinformatics.

## Some programs and systems:

**Moscow ML**, developed with colleagues in Moscow and Cambridge and based on Caml Light from INRIA, France, is a Standard ML implementation widely used in teaching and research.

**C5**, the most comprehensive collection library for the C# programming language [25].

The book [12] is number 151 on the ResearchIndex top 200 most cited computer science works.

## International experience:

Research stays abroad after PhD studies: AT&T Bell Labs, New Jersey, USA, 1994–1995; Microsoft Research, Cambridge UK, Sep–Dec 2001; Harvard University School of Engineering and Computer Science, Boston, USA, Mar–Jun 2009; Microsoft Research, Cambridge UK, Dec 2009.

Since the beginning of 2009 I have given talks at Harvard University, University of Illinois, Carnegie Mellon University, Tufts University, Massachusetts Institute of Technology, Microsoft Research Cambridge UK, as well as Google New York (via videolink from Google Aarhus).

## Refereeing etc for international fora:

Organizer or programme committee member for 14 international conferences and workshops. Programme committee chair for European Symposium of Programming, Vienna 2006 [26].

Refereeing for international journals: Journal of Symbolic Computation; Journal of Logic Programming; Acta Informatica; Science of Computer Programming; Formal Aspects of Computing; Journal of Functional Programming; Computer Journal; ACM Transactions on Programming Languages and Systems; Lisp and Symbolic Computation; Theoretical Computer Science; Journal of Logic and Computation; Journal of Automated Software Engineering; Nordic Journal of Computing; Software Practice and Experience; Journal of Logic and Algebraic Programming.

Refereeing of conference and workshop submissions on approximately 50 occasions.

PhD evaluation committees: Copenhagen University, Technical University of Denmark, Aarhus University, Chalmers University of Technology (Sweden), Royal Institute of Technology (Sweden), Edinburgh University, IT University of Copenhagen, University of Pisa.

Evaluation of academic positions: University of Copenhagen; Technical University of Denmark; Royal Institute of Technology (Stockholm); Royal Veterinary and Agricultural University, Denmark; Agricultural University of Norway; Copenhagen Business School; IT University of Copenhagen; Aalborg University; Roskilde University.

Letters of promotion for full professorships: Oregon State University; University of Illinois.

Member of the Ecma International standardization committee for C# and the Common Language Infrastructure, 2003–2006.

Member of the Danish national Research Council for Technology and Production (FTP) since August 2007.

### Select publications:

- [1] N.D. Jones, P. Sestoft, and H. Søndergaard. An experiment in partial evaluation: The generation of a compiler generator. In J.-P. Jouannaud, editor, *Rewriting Techniques and Applications, Dijon, France. (LNCS 202)*, pages 124–140. Springer-Verlag, 1985.
- [2] P. Sestoft. The structure of a self-applicable partial evaluator. In H. Ganzinger and N.D. Jones, editors, *Programs as Data Objects, Copenhagen, Denmark, 1985. (LNCS 217)*, pages 236–256. Springer-Verlag, 1986.
- [3] P. Sestoft. Automatic call unfolding in a partial evaluator. In D. Bjørner, A.P. Ershov, and N.D. Jones, editors, *Partial Evaluation and Mixed Computation*, pages 485–506. North-Holland, 1988.
- [4] N.D. Jones, P. Sestoft, and H. Søndergaard. Mix: A self-applicable partial evaluator for experiments in compiler generation. *Lisp and Symbolic Computation*, 2(1):9–50, 1989.
- [5] P. Sestoft. Replacing function parameters by global variables. In *Fourth International Conference on Functional Programming Languages and Computer Architecture, Imperial College, London*, pages 39–53. ACM Press, September 1989.
- [6] H. Søndergaard and P. Sestoft. Referential transparency, definiteness and unfoldability. *Acta Informatica*, 27:505–517, 1990.
- [7] C.K. Gomard and P. Sestoft. Globalization and live variables. In *Partial Evaluation and Semantics-Based Program Manipulation, New Haven, Connecticut (Sigplan Notices, vol. 26, no. 9, September 1991)*, pages 166–177. ACM, 1991.
- [8] C.K. Gomard and P. Sestoft. Evaluation order analysis for lazy data structures. In R. Heldal, C. Kehler Holst, and P. Wadler, editors, *Functional Programming, Glasgow 1991*, pages 112–127. Springer-Verlag, 1992.
- [9] C.K. Gomard and P. Sestoft. Path analysis for lazy data structures. In M. Bruynooghe and M. Wirsing, editors, *Programming Language Implementation and Logic Programming, 4th International Symposium, PLILP '92, Leuven, Belgium. (LNCS 631)*, pages 54–68. Springer-Verlag, 1992.
- [10] H. Søndergaard and P. Sestoft. Non-determinism in functional languages. *Computer Journal*, 35(5):514–523, October 1992.
- [11] Z. Chaochen, M.R. Hansen, and P. Sestoft. Decidability and undecidability results for duration calculus. In P. Enjalbert, A. Finkel, and K.W. Wagner, editors, *STACS 93. 10th Symposium on Theoretical Aspects of Computer Science, Würzburg, Germany, February 1993. (LNCS 665)*, pages 58–68. Springer-Verlag, 1993.
- [12] N.D. Jones, C.K. Gomard, and P. Sestoft. *Partial Evaluation and Automatic Program Generation*. Englewood Cliffs, NJ: Prentice Hall, 1993. At <http://www.itu.dk/people/sestoft/pebook/pebook.html>.
- [13] P. Sestoft. ML pattern match compilation and partial evaluation. In O. Danvy, R. Glück, and P. Thiemann, editors, *Partial Evaluation, Dagstuhl Castle, Germany, February 1996. (LNCS 1110)*, pages 446–464. Springer-Verlag, 1996.
- [14] T. Mogensen and P. Sestoft. Partial evaluation. In A. Kent and J.G. Williams, editors, *Encyclopedia of Computer Science and Technology*, volume 37, pages 247–279. New York: Marcel Dekker, 1997.
- [15] P. Sestoft. Deriving a lazy abstract machine. *Journal of Functional Programming*, 7(3):231–264, May 1997.
- [16] S. Romanenko, C. Russo, and P. Sestoft. *Moscow ML Owner's Manual, version 2.00*, June 2000. 35 pages.
- [17] S. Romanenko, C. Russo, and P. Sestoft. *Moscow ML Language Overview, version 2.00*, June 2000. 24 pages.
- [18] S. Diehl, P. Hartel, and P. Sestoft. Abstract machines for programming language implementation. *Future Generation Computer Systems*, 16(7):739–751, May 2000.
- [19] P. Sestoft. Demonstrating lambda calculus reduction. In T. Mogensen, D. Schmidt, and I. H. Sudborough, editors, *The Essence of Computation: Complexity, Analysis, Transformation. Essays Dedicated to Neil D. Jones. (LNCS 2566)*, pages 420–435. Springer-Verlag, 2002.
- [20] P. Sestoft. *Java Precisely*. Cambridge, Massachusetts: The MIT Press, May 2002.
- [21] E. Danielsen, L. Elkjær Jørgensen, and P. Sestoft. Monte Carlo simulations of PAC-spectra as a general approach to dynamic interactions. *Hyperfine Interactions*, 142:607–626, 2002.
- [22] A.L. Gimsing, O.K. Borggaard, and P. Sestoft. Modeling the kinetics of the competitive adsorption and desorption of glyphosate and phosphate on goethite and gibbsite and in soils. *Environmental Science and Technology*, 38(6):1718–1722, March 2004.

- [23] P. Sestoft and H. I. Hansen. *C# Precisely*. Cambridge, Massachusetts: The MIT Press, October 2004.
- [24] P. Sestoft. *Java Precisely*. Cambridge, Massachusetts: The MIT Press, second edition, August 2005.
- [25] Niels Kokholm and Peter Sestoft. The C5 Generic Collection Library for C# and CLI. Technical Report ITU-TR-2006-76, IT University of Copenhagen, January 2006. 254 pages.
- [26] P. Sestoft, editor. *Programming Languages and Systems. 15th European Symposium on Programming, ESOP 2006, Vienna, Austria*, volume 3924 of *Lecture Notes in Computer Science*. Springer-Verlag, 2006.
- [27] P. Sestoft. A Spreadsheet Core Implementation in C#. Technical Report ITU-TR-2006-91, IT University of Copenhagen, September 2006. 135 pages.
- [28] Niels Kokholm and Peter Sestoft. The C5 generic collection library. A .NET 2.0 collection library that supports advanced functionality. *Dr. Dobbs's Journal*, pages 50–56, July 2007.
- [29] J. Jagger, N. Perry, and P. Sestoft. *C# Annotated Standard*. Morgan Kaufmann, 2007.
- [30] E.S. Andersen, A. Lind-Thomsen, B. Knudsen, S.E. Kristensen, J.H. Havgaard, E. Torarinsson, N. Larsen, C. Zwieb, P. Sestoft, J. Kjems, and J. Gorodkin. Semiautomated improvement of rna alignments. *RNA Journal*, 13:1–10, September 2007.
- [31] Peter Sestoft. Implementing function spreadsheets. In *Fourth Workshop on End-User Software Engineering (WEUSE IV)*, Leipzig, Germany, 12 May 2008, 2008.
- [32] Anders Hesselund and Peter Sestoft. Flow analysis of code customizations. In J. Vitek, editor, *European Conference on Object-Oriented Programming (ECOOP) 2008, LNCS 5142*, pages 285–308. Springer-Verlag, 2008.
- [33] Rasmus Johansen, Peter Sestoft, and Stephan Spangenberg. Zero-overhead composable aspects for .NET. In E. Börger and A. Cisternino, editors, *Advances in Software Engineering. LNCS 5316*. Springer-Verlag, 2008. (To appear).
- [34] Peter Sestoft and Sebastien Vaucouleur. Technologies for evolvable software products. In E. Börger and A. Cisternino, editors, *Advances in Software Engineering. LNCS 5316*. Springer-Verlag, 2008. (To appear).
- [35] Jonas Braband Jensen, Lars Birkedal, and Peter Sestoft. Modular verification of linked lists with views via separation logic. In *12th Workshop on Formal Techniques for Java-like Programs*, June 2010.