

**Matthias Felleisen**  
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## Education

Aug. 1987    Ph.D., Indiana University, Bloomington, Indiana  
Dec. 1983    Dipl. Wirtschafts-Ingenieur, Universität Karlsruhe, Germany  
Aug. 1981    M.S., The University of Arizona, Tucson, Arizona

## Professional Experience

2001–pr.    Trustee<sup>1</sup> Professor, Northeastern University, Boston, Massachusetts  
1993–2001    Professor, Rice University, Houston, Texas  
1992–1993    Associate Professor, Rice University, Houston, Texas  
1987–1992    Assistant Professor, Rice University, Houston, Texas  
1984–1986    Research/Teaching Assistant, Indiana University, Bloomington  
summer '85    Research Associate, MCC, Austin, Texas  
1982–1983    Programmer, IDS, Karlsruhe, Germany  
1980    Associate Instructor, Universität Karlsruhe, Germany

## Extended Visits

June 1996    Ecole Normale Supérieure, Paris, France  
1993–1994    Carnegie Mellon University, Pittsburgh, PA  
May 1991    Ecole Normale Supérieure, Paris, France

## Research Interests

I am interested in all aspects of programming, programming languages, and programming environments. Over the past few years, I have also begun to investigate the role of programming language technology in software engineering.

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<sup>1</sup>An endowed chair donated by the Board of Trustees of Northeastern University.

## Educational Interests

I am interested in the role of programming as a (software) design activity and in how to teach programming at all levels of education: K-12, college, and MS programs.

## Awards/Fellowships

2010	ACM Educator of the Year (Karl Karlstrom Prize)
2007	ACM Fellow

## Active Grants

2010–2014	O. Shivers, M. Felleisen, M. Wand. CRASH. Darpa.
2010–2013	M. Felleisen. Modular ACL2. NSF. (collaborative with R. Page).
2009–2013	M. Felleisen. A Hot-House for Programming Languages. NSF.
2009–2012	M. Felleisen, R. Pucella. Software Contracts in a Higher-Order World. AFOSR.
2006–2010	M. Felleisen. Interface-Oriented Programming. NSF.

### Past Grants

2006–2009	M. Felleisen. Using Market Forces to Improve the Design of Software. NSF. (collaborative with R. Findler).
2005–2009	M. Felleisen. Support for Language-Oriented Programming in PLT Scheme. NSF.
2006–2009	M. Felleisen. Integrating Mechanized Logic into the SE Curriculum. NSF. (collaborative with R. Page).

## Professional Activities

2009-pr.	Editor in Chief: <i>Journal of Functional Programming</i>
2004–2008	Editor: <i>Journal of Functional Programming</i>
2001–2008	Pearl Editor: <i>Journal of Functional Programming</i>
2010	Program Committee, <i>Aspect-Oriented System Design</i> .
2010	Program Committee, <i>International Lisp Conference</i> .
2008	Program Committee, <i>Trends in Functional Programming</i> .
2006	Program Committee Chairman, <i>The 2007 ACM Symposium on the Principles of Programming Languages</i> .
2006	Program Committee, <i>The 2006 CUFP Workshop (at ICFP 2006)</i> .

- 2005      Program Committee, *Object-Oriented Programming, Systems, Languages, and Applications 2005*.

## Outreach & Software Projects

- 1995–pr.      TeachScheme!  
1994–pr.      Racket, formerly known as PLT Scheme

## Books

- 2009      *Semantics Engineering with PLT Redex*. MIT Press. (with R. Findler, M. Flatt).

## Refereed Publications: Journals and Book Chapters

- 2011      Dimoulas, C., M. Felleisen. On contract satisfaction in a higher-order world. *Transactions on Programming Languages and Systems*, accepted.  
2010      Culpepper, R., M. Felleisen. Debugging hygienic macros. *Science of Computer Programming* **75**(7), 496–515.  
2009      Felleisen, M., S. Krishnamurthi. Viewpoint: Why computer science doesn't matter. *Communications of the ACM* **52**(7), 37–40.  
2007      Krishnamurthi S., P. Hopkins, J. McCarthy, P. Graunke, G. Pettyjohn , M. Felleisen. Implementation and Use of the PLT Scheme Web Server. *Journal of Higher-Order and Symbolic Computing*, to appear.  
2006      Krishnamurthi S., R. B. Findler, P. Graunke, and Matthias Felleisen. Modeling Web Interactions and Errors. In Dina Goldin, Scott Smolka, Peter Wegner (eds.), *Interactive Computation: The New Paradigm*, Springer Verlag, 2006, 255–276.

## Conference Publications

- 2011      Dimoulas, C., M. Felleisen. Correct contracts. In *Proc. 38th ACM Symposium on Principles of Programming Languages*, 2011, to appear.  
2010      Strickland, T.S., M. Felleisen. Contracts for first-class modules. In *Proc. Sixth Symposium on Dynamic Languages 2010*, to appear.

- 2010 Eastlund C., M. Felleisen Hygienic macros for ACL2. In *Proc. 2010 Symposium on Trends in Functional Programming*, to appear.
- 2010 Strickland, T.S., M. Felleisen. Implementing general contract boundaries. In *Proc. 21st Symposium on Implementation and Application of Functional Languages*, to appear.
- 2010 Tobin-Hochstadt, S. and M. Felleisen. Logical types for untyped languages. In *Proc. 2010 ACM International Conference on Functional Programming*, 2010, 117–128.
- 2010 Culpepper, R. and M. Felleisen. Fortifying macros. In *Proc. 2010 ACM International Conference on Functional Programming*, 2010, 235–246.
- 2009 Strickland, T.S., M. Felleisen. Contracts for first-class modules. In *Proc. Fifth Symposium on Dynamic Languages 2009*, 27–38.
- 2009 Eastlund C., M. Felleisen Making induction manifest in modular ACL2. In *Proc. 2009 Conf. Principles and Practice of Declarative Programming*, 105–116.
- 2009 Dimoulas C., R. Pucella, M. Felleisen. Future contracts. In *Proc. 2009 Conf. Principles and Practice of Declarative Programming*, 195–206.
- 2009 Felleisen, M., R.B. Findler, M. Flatt, S. Krishnamurthi. A functional I/O system or, fun for freshman kids. In *Proc. 2009 ACM International Conference on Functional Programming*, 2009, 47–58.
- 2009 Strickland, S., Tobin-Hochstadt, S., and M. Felleisen. Practical Variable-Arity Polymorphism. In *Proc. 2009 European Symposium on Programming*, 32–46.
- 2009 Eastlund, C. and M. Felleisen. Toward a Practical Module System for ACL2. In *Proc. 9th ACM Symposium on Practical Aspects of Declarative Languages*, 2009, 46–60.
- 2008 Tobin-Hochstadt, S. and M. Felleisen. The Design and Implementation of Typed Scheme. In *Proc. 35th ACM Symposium on Principles of Programming Languages*, 2008, 395–407.
- 2007 Flatt, M., R.B. Findler, G. Yu, M. Felleisen. Adding delimited and composable control to a production programming environment. In *Proc. 2007 ACM International Conference on Functional Programming*, 2007, 165–177.
- 2007 Culpepper, R. and M. Felleisen. Debugging Macros, In *Proc. Generative Programming and Component Engineering*, 2007, 135–144.
- 2006 Flatt, M., R.B. Findler, M. Felleisen. Scheme with Classes, Mixins, and Traits. In *Proc. Asian Symposium on Programming Languages and Systems (ASPLA 2006)*, 270–289.
- 2006 Tobin-Hochstadt, S., M. Felleisen. Interlanguage Migration: From Scripts to Programs. *Proc. Dynamic Languages Symposium (OOPSLA 2007 Track)*, 964–974.
- 2006 Meunier, P., R. Findler, and M. Felleisen Modular Set-Based Analysis from Contracts. In *Proc. 33rd ACM Symposium on Principles of Programming Languages*, 2006, 218–231.
- 2005 Pettyjohn, G., J. Clements, J. Marshall, S. Krishnamurthi, M. Felleisen Continuations from Generalized Stack Inspection. In *Proc. 2005 ACM*

- 2005      *International Conference on Functional Programming*, 216–227.  
 Cobbe, R. and M. Felleisen Environmental acquisition revisited. In *Proc. 32nd ACM Symposium on Principles of Programming Languages*, 2005, 14–25.

## Miscellaneous

- 2009      Eastlund, C., and M. Felleisen. Automatically Verified GUI Programs. *Proc. Symp. ACL2 Theorem Prover and its Applications*, 2009, to appear.
- 2008      Page, R., Eastlund, C., and M. Felleisen. Functional programming and theorem proving for undergraduates: a progress report. *Proc. Works 2008, Functional and declarative programming in education*, 21-30.
- 2007      Eastlund, C., Vaillancourt, D., and M. Felleisen. ACL2 for Freshmen: First Experiences. *Proc. Symp. ACL2 Theorem Prover and its Applications*, 2007,
- 2006      Vaillancourt, D., R. Page, M. Felleisen. Dracula: ACL2 in DrScheme. *Proc. Symp. ACL2 Theorem Prover and its Applications*, 2006, 107–116.
- 2006      Culpepper, R. and M. Felleisen. A Macro Stepper for Sceme *Proc. Worksh. Scheme and Functional Programming*, Portland (OR), 2006.

## Ph.D. Students

- 2010      Ryan Culpepper. *Refining Syntactic Sugar: Tools for Supporting Macro Development*.
- 2009      Sam Tobin-Hochstadt. *Typed Scheme: From Scripts to Programs*.
- 2008      Richard Cobbe. *Much Ado about Nothing: Putting Null in its Place*.
- 2006      Philippe Meunier. *Modular Set-Based Analysis from Contracts*.
- 2005      John Clements. *Portable and High-level Access to the Stack with Continuation Marks*.

## Keynotes at Conference & Workshops

- 2010 TeachScheme! – A Checkpoint. At the *International Conference on Functional Programming*, Baltimore, September, 2010.
- 2010 Types for Untyped Languages. At the *Symposium on Typed Languages: Design and Implementation*, Madrid, January, 2010.
- 2009 From Soft Scheme to Typed Scheme: Experience from 20 Years of Script Evolution, and Some Ideas of What Works. At the *2009 Workshop on Scripts to Programs*, Genoa, Italy, July 2009.
- 2005 How to Design Class Hierarchies. At the *2005 Functional and Declarative Programming in Education*, Talinn, Estonia, September 2005. (Delivered by M. Flatt, due to a family death)