

MATTHIAS FELLEISEN

College of Computer and Information Science
Northeastern University
Boston, MA 02115

EDUCATION

1987 Indiana University, Bloomington, Indiana, Ph.D. in Computer Science.
1983 Technische Universität Karlsruhe, Germany, Dipl. WiIng.
1981 The University of Arizona, Tucson, Arizona, M.S. in Computer Science.

ACADEMIC APPOINTMENTS

2001– ... Trustee Professor, Northeastern University, Boston, MA.
1993–2001 Professor, Rice University, Houston, Texas.
Sum. 91, 97 Visiting Professor, École Normale Supérieure Paris, France.
1993–1994 Visiting Professor, Carnegie Mellon University, Pittsburgh.
1992–1993 Associate Professor, Rice University, Houston, Texas.
1987–1992 Assistant Professor, Rice University, Houston, Texas.

RESEARCH INTERESTS My research interests cover all aspects of program design and programming language design. In terms of teaching, I am interested in all courses in the computer science core curriculum, covering program design for applications, components, and systems plus the underlying logics.¹

MAJOR PRODUCTS I am the founder of PLT (1993), a distributed research group that jointly produces the **Racket** programming language, the **DrRacket** IDE, and plug-in tools (the Stepper, the Macro Debugger, the PLT Web Server, etc). The tools are used in educational outreach projects as well as industrial projects.

BOOKS

2015 *How to Design Programs* (Second Edition). MIT Press. (With same authors as the first edition)
2013 *Realm of Racket: For Freshmen, by Freshmen*. NoStarch Press. (With Forrest Bryce, Rose DeMaio, Spencer Florence, Mimi Lin, Scott Lindemann, Nicole Nussbaum, Eric Peterson, Ryan Plessner, David Van Horn, Conrad Barks))
2010 *Semantics Engineering with PLT Redex*. MIT Press. Korean: 2012. (With Findler and Flatt)
2001 *How to Design Programs*. MIT Press. Korean: 2012. Spanish: 2008. Chinese: 2003. Polish: 2002. (With Robert Findler, Matthew Flatt, Shriram Krishnamurthi)
1998 *A Little Java, A Few Patterns*, MIT Press. Japanese translation: 1998. (With Friedman)
1998 *The Little MLer*. MIT Press. (With Friedman)
1996 *The Seasoned Schemer*. MIT Press. (With Friedman)
1996 *The Little Schemer* (Fourth Edition). MIT Press. Third: 1989, MacMillan. Second: 1985, Science Research Associates. Japanese: 1990. French: 1991. (With Daniel P. Friedman)

¹The study of logics relates to programming like analysis relates to engineering.

PUBLICATIONS IN JOURNALS AND HIGHLY SELECTIVE CONFERENCES

I have published over 100 papers in journals and highly selective conferences.² Google Scholar attributes approximately 10,000 citations to my publications, which places me in the top-10 cited scholars of my area.

- 1998 Flatt, M., S. Krishnamurthi, M. Felleisen. A programmer's reduction semantics for classes and mixins. J. Alves-Foss (Ed.), *Formal Methods for Java*. **LNCS 1523**. 1998, 241–270.
- 1997 Ariola, Z. M. Felleisen, The Call-By-Need Lambda Calculus. *J. Funct. Progr.* **7**, 265–301.
- 1994 Wright, A. M. Felleisen. A syntactic approach to type soundness. *Info. & Compu.* 38–94.
- 1993 Flanagan, C., A. Sabry, B.F. Duba, M. Felleisen. The essence of compiling with continuations. In *Conference on Programming Language Design and Implementation*, 1993, 237–247.
- 1992 Felleisen, M. R. Hieb. The revised report on the syntactic theories for control and state. *Theoretical Computer Science* **102**, 235–272.

ACTIVE GRANTS

I have obtained around 35 grants from the AFOSR, ARO, Darpa, DoED, NSF, and the Texas Advanced Technology Program plus gifts from Cisco, Cord.org, Exxon, and Microsoft.

- 2014–2017 Compiler Coaching. With Tobin-Hochstadt (Indiana). NSF.
- 2014–2017 Run Your Research with Redex. With Flatt (Utah) and Findler (NWU). NSF.
- 2011–2014 Semantics Engineering. With Krishnamurthi (Brown) and Findler (NWU). NSF.
- 2010–2015 Gnosys. With O. Shivers & M. Wand. DARPA.
- 2009–2014 A Hot-House for Programming Languages. NSF.

MAJOR AWARDS

I consider the following six awards my most significant ones.

- 2012 ACM SIGPLAN Most Influential ICFP Paper Award
- 2012 ACM SIGPLAN Lifetime Achievement Award
- 2011 ACM SIGCSE Outstanding Educator Award
- 2009 ACM Karl V. Karlstrom Outstanding Educator Award
- 2007 ACM Fellow
- 1980–1981 Fulbright Fellowship

MAJOR KEYNOTES

I have given over 20 keynotes at most major research conferences in my area.

- 2011 *How to Design Programs*. SIGCSE. Dallas, Texas.
- 2010 *The TeachScheme! Project*. ICFP. Baltimore, Maryland.
- 2004 *Functional Classes, Functional Objects*. ECOOP. Oslo, Norway.
- 2002 *From POPL to the Classroom and Back*. POPL. Portland, Oregon.
- 2000 *Static Analysis from one Consumer's Perspective*. SAS. Santa Barbara, California.
- 2011 *Functional Programming is Easy, and Good for You*

²While conference publications are merely reviewed rather than refereed, they go through a rigorous selection process and are often larger and more comprehensive than journal papers in computer science and neighboring disciplines.