Dr. Marcus Denker — Curriculum Vitae

5. Februar 2025

1 Personal Data

Name:	Marcus Denker
Work:	Inria Lille – Nord Europe
	Parc Scientifique de la Haute Borne
	40, avenue Halley
	59650 Villeneuve d'Ascq / France
E-mail:	marcus.denker@inria.fr
Web:	http://marcusdenker.de
OCID ID:	http://orcid.org/0000-0003-2549-4222
PND:	138895775
Citizenship:	German
Languages:	- German: native speaker.
	- English: fluent in writing and speaking.
	- French: more and more.
	- Spanish: very little.
	- Latin: all forgotten.

Research Interests

Reflective Systems, Context-oriented Programming, Software Evolution, Language Design, Implementation of Dynamic Languages, Secure Dynamic Languages, Compilers, Bio-inspired Computing.

Current Employment

since 15/12/2009	**Inria Lille – Nord Europe**, France.
	Tenured Research Scientist.
	Member of Team EVREF.

1.1   Employment History

04/2009 – 12/2009	**University of Chile**, Santiago de Chile. Visiting Researcher at the *PLEIAD Laboratory*. SNF Postdoc Fellowship.
06/2008 – 03/2009	**University of Bern, Switzerland** Postdoc at the *Software Composition Group*.
05/2004 – 05/2008	**University of Bern, Switzerland**. Teaching and Research Assistant. Ph.D. Student, *Software Composition Group*.
03/2003 – 04/2004	**Consultant for Impara GmbH** (self employed) Worked on Scripting languages for Squeak and Croquet. Worked on an IDE for Tweak.
10/2000 – 04/2001	**Walt Disney Imagineering, Glandale, USA** Student Internship in the research group of Dr. Alan Kay Worked on the Squeak Just-In-Time Compiler.
1997–2003	**University of Karlsruhe, Germany** Student Assistant, ATIS, Dept. of Computer Science. Administered the department's e-Mail system. Implemented AtisWiki.
1995–1996	**CVJM Viktoria Borkum, Germany** Social Service.

1.2   Education

2004-2008	**Dr. phil.-nat. (Ph.D.) Computer Science**
	University of Bern, Switzerland.
	Dissertation: *Sub-method Structural and Behavioral Reflection*.
	Ph.D. Committee:
	  - Prof. Oscar Nierstrasz *(Universtity of Bern)* (adviser)
	  - Prof. Pierre Cointe *(Ecole des mines de Nantes / Inria)*
	  - Prof. Robert Hirschfeld *(HPI Potsdam)*
	Grade: 6.0 (out of 6.0), *"Summa cum Laude"*.

1996–2004	**Dipl.-Inform. (M.Sc.) Computer Science** University of Karlsruhe, Germany. Minors: Physics (undergraduate), Molecular Genetics (graduate). Thesis: *Erweiterung eines statischen übersetzers zu einem Laufzeitübersetzungssystem (Extending a Static Compiler to a Runtime Translation System)*. Adviser: Prof. Dr. Gerhard Goos. Grade: 1.5 (In a scale from 1.0 to 4.0), *"Very Good"*
1988–1994	**Music school: Horn** Fritz-Busch-Musikschule, Siegen, Germany Studied with Albert Prins
1986–1995	**Abitur** (German university entrance qualification). Gymnasium am Löhrtor Siegen, Germany. Grade: 1.9 (In a scale from 1.0 to 4.0), *"Good"*
1982–1986	**Grundschule** Grundschule Niederdielfen, Niederdielfen, Germany

1.3   Grants and Prizes

- VISSOFT 2023 most-influential paper: Performance Evolution Blueprint: Understanding the Impact of Software Evolution on Performance (October, 2023)

- ESUG Innovation Technology Awards 2023: 2nd place for Soil, September 2023.

- SNF[1] Postdoc Fellowship: *Biologically Inspired Languages for Eternal Systems*, 2009 (CHF 41000 + CHF 3000 travel + CHF 2000 conference travel).
  Hosting Institution: PLEIAD Laboratory, University of Chile, Santiago de Chile.

- *Fakultätspreis 2008*. Prize for the Ph.D. dissertation from the Faculty of Mathematics, University of Bern, January 2009 (CHF 3000).

- AOSD-Europe [2] *Visiting Researcher Bursary in Aspect-Oriented Software Development*, September 2008. (EUR 2000).
  Hosting Institution: PROG, Vrije Universiteit Brussel, Belgium.

- CHOOSE[3] Conference Sponsorship 2008, 2007, 2006 (each CHF 500).

1.4   Research Funding

- PLOMO Inria Associated Team (2011-2013). Funding for RMoD (Inria) and Pleiad (University of Chile) to collaborate. Budget: 45K.

- PLOMO2 Inria Associated Team (2014-2016). Funding for RMoD (Inria) and Pleiad (University of Chile) to collaborate. Budget: 30K.

1.5   Business: ZWEIDENKER GmbH

ZWEIDENKER : Co-Founder.
Founded with Christian Denker January 2009 as *2Denker UG (haftungsbeschränkt)* before joining INRIA.
Since 2012 *2Denker GmbH*, since 2017 *ZWEIDENKER GmbH*.
For more information, see `http://zweidenker.de`.

1.6   Non-Profit Organizations

Pharo User Association (since 2012): Co-Founder. The goal of the Pharo association is to let individuals support the promotion and development of Pharo.
`http://association.pharo.org`

ESUG (since 2004): Board Member of the *European Smalltalk Usergroup*. ESUG organizes a yearly conference for industry and academics. The conference is attended by 150-170 people. In addition, ESUG has a program to support students attending international conferences. ESUG supports publications of books, articles and talks about Smalltalk.
`http://www.esug.org`

Squeak Germany e.V. (2002–2007): Co-Founder and Member of the board until May 2007. *Squeak e.V.* is a registered, tax-exempt german non-profit with the goal to support the use of Squeak and eToys in Germany. `http://www.squeak-ev.de`

The Squeak Foundation (until 2007): Co-Founder and Board-Member until Spring 2007. *The Squeak Foundation* governs the development of Squeak. `http://www.squeak.org`

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[1] Swiss National Science Foundation
[2] European Network of Excellence on Aspect-Oriented Software Development
[3] Swiss Group for Object-Oriented Systems and Environments

1.7 Open Source Projects

Pharo (since 2008): Co-founder and core developer. Open Source Smalltalk based on Squeak. Co-author of *Pharo by Example* (`http://pharobyexample.org`).
Website: `http://pharo-project.org`

Reflectivity (since 2005): Reflectivity provides extensions to the standard reflection features of Smalltalk for both structural and behavioral reflection: (i) Structural reflection is extended by sub-method reflection: the structure of method bodies has as a first class and causally connected representation that can easily be extended and annotated. (ii) Behavioral Reflection is provided by a new and improved version of Geppetto, a realization of Partial Behavioral Reflection as pioneered by Reflex.
Website: `http://scg.unibe.ch/research/reflectivity`

Bytesurgeon (since 2004): ByteSurgeon is a library to transform binary code in Smalltalk. It takes full advantage of the flexibility of the Squeak environment to enable bytecode transformation at runtime, thereby allowing dynamic, on-the-fly modification of applications. ByteSurgeon operates on bytecode in order to cope with situation where either the source code or a full compiler is not available, while providing appropriate high-level abstractions so that users do not need to program at the bytecode level.
Website: `http://scg.unibe.ch/research/bytesurgeon`

Squeak (1998–2008): Active participant in the Squeak community. Co-founder of *The Squeak Foundation*, Co-founder of *Squeak Germany e.V.* (board member 2003-2007). Responsible (together with Stéphane Ducasse) for the release 3.9 of Squeak which is used widely in research and industry. Co-author of *Squeak by Example* (`http://squeakbyexample.org`). The book has been translated to french and downloaded more than 88.000 times.
Website: `http://squeak.org`

AtisWiki (1998–1999): Implemented one of the first open source Wiki systems. It was used by both universities and industry. Later, UseModWiki was developed based on AtisWiki. From January 15, 2001 until early 2002, UseModWiki was used to run all versions of Wikipedia.
Website: `http://marcusdenker.de/old/AtisWiki.html`

2 Teaching & Supervising

The research job at Inria does not require teaching duties. Listed course are therefore from the time in Bern.

2.1 Courses (University of Bern)

Co-Lecturer and Head Teaching Assistant. Involved in the conception of the course, designed one, later two lectures myself. I was responsible for the exercises and the final exam.

Fall 07	**Dynamic Object-Oriented Programming with Smalltalk**. Professor Oscar Nierstrasz. A Course about dynamic OO, using Squeak. (Master) Lectures: *Seaside, Working with Bytecodes*.
Summer 06	**Dynamic Object-Oriented Programming with Smalltalk**. Professor Oscar Nierstrasz. A Course about dynamic OO, using Squeak. (Master) Lectures: *Working with Bytecodes*.
Winter 04/05	**Smalltalk**. Professor Stéphane Ducasse. A Course about Smalltalk, using Squeak. (Master) Lectures: *Working with Bytecodes*.

2.2 Lectures

Lectures given as part of other courses.

1. **VUB Brussels**, March 2024, March 2023, March 2022, October 2020, October 2019, October 2018, March 2018
   Course: Metaprogramming and reflection in OO languages (Prof. Elisa Gonzales Boix)
   Lecture: *MetaLinks*. (2 hours)

2. **University Barcelona**, October 2013.
   Course: Advanced Concepts in Programming (Prof. Delgado)
   Lecture: *Advanced Reflection in Pharo*. (1.5 hours)

3. **Universite catholique de Louvain**, March 2012.
   Course: Programming Paradigms (Prof. Mens, master level)
   Lecture: *Reflection and Context*. (1.5 hours)

4. **Universite catholique de Louvain**, March 2011.
   Course: Programming Paradigms (Prof. Mens, master level)
   Lecture: *Reflection and Context*. (1.5 hours)

5. **DCC University of Chile**, September 2009.
   Course: Objetos y Aspectos (Prof. Fabry, master level)
   Lecture: *Sub-Method Structural and Behavioral Reflection*. (1.5 hours)

6. **University of Bern**, Fall 2008.
   Course: Compiler Construction (Prof. Nierstrasz, master level)
   Lecture: *Introduction to SSA* (1.5 hours)
   Lecture: *Optimizations* (1.5 hours)

7. **University of Bern**, Spring 2008.
   Course: Metamodeling and Metaprogramming Seminar. (Prof. Nierstrasz, master level)
   Lecture: *Sub-Method Structural and Behavioral Reflection*. (1.5 hours)

8. **Hasso Plattner Institute, Potsdam, Germany**, November 2007.
   Course: Metaprogramming and Reflection (Prof. Hirschfeld, master level).

Lecture: *Refactoring* (45 minutes)
Lecture: *Sub-Method Reflection* (45 minutes)

9. **Hasso Plattner Institute, Potsdam, Germany**, July, 2006.
Course: Metaprogramming and Reflection (Prof. Hirschfeld, master level)
Lecture: *Behavioral Reflection* (45 minutes)
Lecture: *Refactoring* (45 minutes)

10. **DCC University of Chile**, October 2005.
Course: Topicos Avanzados en Lenguajes de Computacion. (Prof. Tanter, master level)
Lecture: *VMs, Interpreters, JIT & Co* (1.5 hours)
Lecture: *IRBuilder and ByteSurgeon* (1.5 hours)

2.3 PhD Committees

- *Bridging the Gap between Machine and Language using First-Class Building Blocks*,
Toon Verwaest. University of Bern, Switzerland, 12/03/2012.

2.4 Co-Supervised PhD Theses

1. Clement Bera *"Sista : A Metacircular Architecture for Runtime Optimisation Persistence"*
Ph.D. thesis, University Lille, 2017.

2. Camillo Bruni *"Towards Self-aware Virtual Machines"*, Ph.D. thesis, University Lille, 2014.

3. Nick Papoulias *Languages and Development Environments for Mobile Autonomous Robots*,
Ph.D. thesis, University Lille,, 2013.

4. Jean-Baptiste Arnaud *"Towards First Class References as a Security Infrastructure in Dynamically-Typed Languages"*, Ph.D. thesis ,University Lille,, 2013.

5. Mariano Martinez Peck, *"Application-Level Virtual Memory for Object-Oriented Systems"*,
Ph.D. thesis, University Lille , 2012.

2.5 Supervised Bachelor and Master Theses

1. Christoph Hofer, *"Implementing a Backward-In-Time Debugger"* Masters thesis, University
of Bern, September 2006.

2. Philippe Marschall, *"Persephone: Taking Smalltalk Reflection to the sub-method Level,"* Masters thesis, University of Bern, December 2006.

3. David Röthlisberger, *"Geppetto: Enhancing Smalltalk's Reflective Capabilities with Unanticipated Reflection,"* Masters thesis, University of Bern, January 2006.

4. Anselm Strauss, *"Stamp – a Mailinglist Manager,"* Studienarbeit (Bachelors thesis), University of Bern, May 2007.

5. Anselm Strauss, *"Dynamic Aspects,"* Masters thesis, University of Bern, October 2008.

2.6 Mentoring

- Mentor, Google Summer of Code 2019, 2017, 2012 and 2007. `https://summerofcode.withgoogle.com`

- Mentor, ESUG Summertalk 2006. `http://www.esug.org`

3 Professional Activities

3.1 Professional Service

- Organization:
  - ESUG Local Organizer 2024, Lille, France
  - ESUG Local Organizer 2019, Cologne, Germany
  - PharoDays starting 2012 as a member of the Pharo board
  - ESUG conferences starting 2005 as a member of the ESUG board
- PC Chair:
  - Smalltalks 2010 *Workshop at the Argentinean Smalltalk Conference*
- PC Member:
  - RAW 2024 *3rd workshop on Resource AWareness of Systems and Society*
  - RAW 2023 *2nd workshop on Resource AWareness of Systems and Society* (co-located with Euro-par 2023)
  - CERCIRAS 2021 *1st Workshop on Connecting Education and Research Communities for an Innovative Resource Aware Society (CERCIRAS Cost Action CA19135)*
  - ICOOLPS 2019, *Implementation, Compilation, Optimization of Object-Oriented Languages, Programs and Systems Workshop*
  - SANER 2017, 2016 *(23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering)*
  - Meta'16 *(International Workshop, SPLASH 16)*
  - SLE'16 *(9th International Conference on Software Language Engineering)*
  - DLS 2016, 2013, 2012 *(Dynamic Languages Symposium at SPLASH)*
  - VISSOFT'15 NIER/TD *IEEE Working Conference on Software Visualization, NIER and Tool Tracks*
  - COP 2014, 2012 *(ECOOP International Workshop on Context-Oriented Programming)*
  - IWST 2014, 2012, 2011, 2010, 2009 *(ESUG International Smalltalk Workshop)*
  - Varicomp 2013, 2012, 2011 *(International Workshop on Variability & Composition)*
  - Tool Paper Track, SCAM 2013 *(IEEE International Working Conference on Source Code Analysis and Manipulation)*
  - ICSM 2013, 2012 Tool Demos *(Conference on Software Maintainance)*
  - ICSE 2012 Tool Demos *(International Conference on Software Engineering)*
  - AOSD 2011 *(Annual Aspect-Oriented Software Development Conference)*
  - S3 2010 *(Workshop on Self-sustaining Systems)*
  - RAM-SE 2011, 2010, 2009 *(ECOOP Workshop on Reflection, AOP, and Meta-Data for Software Evolution)*
  - IWST 2012, 2011, 2010, 2009 *(ESUG International Smalltalk Workshop)*
  - Smalltalks 2011 *Workshop at the Argentinean Smalltalk Conference*
  - SC 2009 *(International Conference on Software Composition)*
- Publicity Chair:

- – TOOLS 2009 *(International Conference Objects, Models, Components, Patterns)*
- External Reviewer:
    - – ICSME 2024 *International Conference on Software Maintenance and Evolution*
    - – SLE 2013 *International Conference on Software Language Engineering)*
    - – Vissoft 2011 *(6th IEEE International Workshop on Visualizing Software for Understanding and Analysis)*
    - – Benevol 2010 *(BElgian-NEtherlands software eVOLution seminar)*
    - – MODELS 2010, 2006 *(Model Driven Engineering Languages and Systems)*
    - – ICSM 2010, 2007, 2006, 2005 *(IEEE International Conference on Software Maintenance)*
    - – TOOLS 2011, 2010, 2009 *(International Conference Objects, Models, Components, Patterns)*
    - – ECOOP 2010, 2005 *(European Conference on Object-Oriented Programming)*
    - – SAC 2008 *(ACM Symposium on Applied Computing)*
    - – FASE 2008 *(Fundamental Approaches to Software Engineering)*
    - – DLS 2007 *(Dynamic Languages Symposium at OOPSLA)*
    - – WCRE 2006 *(Working Conference on Reverse Engineering)*
    - – ISC 2006 *(International Smalltalk Conference)*
    - – NODe 2005 *(Net.ObjectDays)*
- Journal Reviewer:
    - – IEEE *Transactions on Software Engineering* (TSE), ISSN 0098-5589
    - – Elsevier *Information and Software Technology* (IST), ISSN: 0950-5849
    - – Elsevier *Science of Computer Programming* (SCP), ISSN: 0167-6423
    - – Elsevier *Journal of Computer Languages, Systems and Structures* (COMLAN), ISSN: 1477-8424
    - – ComSIS Consortium *Computer Science and Information Systems* (COMSIS) ISSN: 2406-1018 (2024)
    - – Elsevier *Journal of Computer Languages* (COLA), ISSN: 2590-1184 (2024)
- Referee:
    - – EUREKA Hungarian-German Technology and Innovation Cooperation 2018
    - – FONDECYT (Chilean National Science and Technology Commission) Research proposal reviews 2016, 2015
- Moderator
    - – Moderator arXiv cs.SE, from 2015. `http://arxiv.org/list/cs.SE/recent`
- Small things:
    - – Dynamic Language Lounge at ECOOP 2007.
    - – Teacher's day at ESUG 2004.
    - – Multiple one-day Squeak meetings and workshops in Karlsruhe and Bern.

3.2   Extended Professional Visits

02.11-02.12.2015 PLEIAD DCC University of Chile, Santiago de Chile (1 Month).
Visit in the context of the Inria Associated Team PLOMO2.

29.09–24.10.2008 Programming Technology Lab, Vrije Universiteit Brussel, Belgium (1 Month).
Research visit: AOSD-Europe Visiting Researcher Bursary in Aspect-Oriented Software Development.

10/2005–12/2005 DCC University of Chile/Santiago (3 Months).
Invited by Prof. Dr. Eric Tanter.
Lectures: *VMs, Interpreters, JIT & Co* and *IRBuilder and ByteSurgeon*.

10/2000–04/2001 Walt Disney Imagineering R&D, Glandale, USA (6 Months).
Invited by Dr. Alan Kay (Winner *ACM Turing Award 2003*).

3.3   Presentations, Demos and Talks

Slides (and in some cases videos) for these talks are available from the following web site:
`http:/marcusdenker.de/Talks.html`

1. Demo: *"thisContext in the Debugger"*, ESUG 23, Lyon, Aug 31, 2023.

2. Talk: *"Constant Blocks"*, ESUG 23, Lyon, Aug 30, 2023.

3. Talk: *"Soil and Pharo"'*, ESUG 23, Lyon, Aug 30, 2023.

4. Lecture: *"Advanced Reflection: MetaLinks"*, VUB Brussels, March 30, 2023.

5. Demo: *"Improved DoIt"*, ESUG 22, Novi Sad, Aug 24, 2022.

6. Lecture: *"Supporting Pharo / Getting Pharo Support"*, ESUG 22, Novi Sad, Aug 22, 2022.

7. Lecture: *"First Class Variables as AST Annotations'*, ESUG 22, Novi Sad, Aug 23, 2022.

8. Lecture: *"Advanced Reflection: MetaLinks"*, VUB Brussels, March 31, 2022.

9. Talk: *"Variables in Pharo"*, UK Smalltalk User Group, August, 25, 2021

10. Lecture: *"Advanced Reflection: MetaLinks"*, VUB Brussels, October 29, 2020.

11. Lecture: *"MetaLinks"*, VUB Brussels, October 30, 2019.

12. Talk: *Improving Code Completion in Pharo*, ESUG 2019, Cologne, Germany, Aug 30, 2019.

13. Talk: *Slot Compostion*, ESUG 2019, Cologne, Germany, Aug 27, 2019.

14. Lecture: *"MetaLinks"*, VUB Brussels, October 30, 2018.

15. Talk: *Real World Trustable Data*, Novartis ESMO2018, Munich, Germany, 18.10.2018.

16. Tutorial: *"Pharo IoT"*, ESUG 2018, Cagliari, Italy, Sept 14, 2018.

17. Talk: *" Docker and Pharo @ ZWEIDENKER"*, ESUG 2018, Cagliari, Italy, Sept 11, 2018.

18. Talk: *"Open Source: An Infinite Game"*, ESUG 2018, Cagliari, Italy, Sept 10, 2018.

19. Lecture: *"MetaLinks"*, VUB Brussels, Mar 22, 2018.

20. Demo/Tutorial: : *"Contributing to Pharo7"*, PharoTechTalk, Feb 15, 2018.

21. Talk: *"Feedback Loops in Practice"*, ESUG 2017, Maribor, Slovenia, Sept 04, 2017.

22. Talk: *"Pharo 6"*, ESUG 2017, Maribor, Slovenia, Sept 04, 2017.

23. Talk: *"Pharo 6"*, PharoDays 2017, Lille, France, May 17, 2017.

24. Tutorial: : *"Reflectivity"*, PharoTechTalk, Feb 28, 2017.

25. Talk: *"Perfection & Feedback Loops or: why worse is better"*, ESUG 2016, Prag, Aug 26, 2016.

26. Paper Presentation: *"Dynamically Composing Collection Operations through Collection Promises"*, IWST 2016, Prag, Aug 23, 2016.

27. Talk: *"Reflection in Pharo: Beyond Smalltak"*, PharoDays 2016, Namur, Belgium, April 1, 2016.

28. Talk: *"Reflection in Pharo: Beyond Smalltak"*, Talk held at SOFT research group VUB, Brussels, Belgium, January 25, 2016.

29. Talk: *"Variables in Pharo5"*, ESUG 2015, Brescia, Italy, July 17, 2015.

30. Talk: *"Reflection in Pharo5"*, ESUG 2015, Brescia, Italy, July 14, 2015.

31. Talk: *"Pharo Status"*, Fosdem 2015, Brussels, Belgium, February 02, 2015.

32. Talk: *"How to Contribute to Pharo"*, PharoDays 2015, Lille, France, January 30, 2015.

33. Talk: *"Pharo Status"*, PharoDays 2015, Lille, France, January 30, 2015.

34. Talk: *"Nomads do not build Cathedrals"*, ESUG 2014, Cambridge, UK, August 21, 2014.

35. Talk: *"Pharo Status"*, ESUG 2014, Cambridge, UK, August 20, 2014.

36. Talk: *"Pharo: A Reflective System"*, 30min of Science, Inria Lille, France, February 12, 2014.

37. Talk: *"Pharo3"*, FOSDEM 2014, Brussels, Belgium, February 01, 2014.

38. Talk: *"Pharo4: Plans and Dreams"*, FOSDEM 2014, Brussels, Belgium, February 01, 2014.

39. Talk: *"Pharo: Objects at your Fingertips"*, Universitat Politècnica de Catalunya, Barcelona, Spain, October 30, 2013.

40. Lecture: *"Advanced Reflection in Pharo"*, Universitat Politècnica de Catalunya, Barcelona, Spain, October 29, 2013.

41. Paper presentation: *"Towards a flexible Pharo Compiler"* IWST 2013, Annecy, France, September 2013.

42. Talk: *"Pharo. 2.0 Update."*, FOSDEM 2013, Brussels, Belgium, February 03, 2013.

43. Talk: *"Pharo : a Dynamic Reflective System"*, fOSSa 2012, Lille, France, December 05, 2012.

44. Talk: *"Pharo: Syntax in a Nutshell."*, fOSSa 2012, Lille, France, December 05, 2012.

45. Lecture: *"Reflection and Context"*, Universite catholique de Louvain, Louvain-la-Neuve, Belgium, March 27, 2012.

46. Talk: *"Pharo. Next Steps."*, FOSDEM 2012, Brussels, Belgium, February 07, 2012.

47. Talk: *"Research at RMoD"*, Smalltalks 2011, Quilmes, Argentina, November 05, 2011.

48. Talk: *"Bootstrapping a Smalltalk"*, Smalltalks 2011, Quilmes, Argentina, November 04, 2011.

49. Talk: *"Pharo. One Year Later"*, Smalltalks 2011, Quilmes, Argentina, November 03, 2011.

50. Talk: *"Pharo Roadmap"*, ESUG 2011, Edinburgh, UK, August 25, 2011.

51. Lecture: *"Reflection and Context"*, Universite catholique de Louvain, Louvain-la-Neuve, Belgium, March 17, 2011.

52. Talk: *"Pharo: A Dynamic Environment for Business and Research"*, Smaltalks 2010, Concepción.del Uruguay, Argentina, November 12, 2010.

53. Talk: *"Pharo"*, ESUG 2010, Barcelona, Spain, September 13, 2010.

54. Invited talk: *"Pharo"*, JM2L 2009, Sophia Antipolis, France, November 28, 2009.

55. Lecture: *"Sub-method Structural and Behavioral Reflection."* University of Chile, September 22, 2009.

56. Talk: *"An Instrument whose Music is Ideas. Smalltalk, eToys and the Idea of the Children's Machine"*, DCC University of Chile, August 2009.

57. Talk: *"The present and future of Pharo"*, CHOOSE Talk, SCG University of Bern, Switzerland, July 2009.

58. Presentation for competitive selection CR2 junior research scientists, Inria Lille, May 18, 2009.

59. Invited talk: *"Practical, Pluggable Types"*, PPS laboratory, Université Paris Diderot - Paris 7, December 2008.

60. Presentation about my research, DCC University of Chile (via video conference), October 29, 2008.

61. Lecture: *"Compiler Construction: Introduction to SSA."* University of Bern, fall 2008.

62. Lecture: *"Compiler Construction: Optimizations."* University of Bern, fall 2008.

63. Paper presentation: *"The Meta of Meta-Object Architectures."* TOOLS 2008, Zürich, Switzerland, June 2008.

64. Presentation: *"2denker engineering: Time—Source."* Venturelab venture challenge. Bern, Switzerland, June 2008.

65. PhD Defense: *"Sub-method Structural and Behavioral Reflection."* University of Bern, May 26, 2008.

66. Lecture: *"Sub-method Structural and Behavioral Reflection."* University of Bern, May 03, 2008.

67. Lecture: *"Working with Bytecode."* University of Bern, December 05, 2007.

68. Lecture: *"Refactoring."* Hasso Plattner Institute, Potsdam, Germany, November 11, 2007.

69. Lecture: *"Sub Method Reflection."* Hasso Plattner Institute, Potsdam, Germany, November 11, 2007.

70. Lecture: *"Seaside."* University of Bern, Oktober 24, 2007.

71. Demo: *"Reflectivity."* ESUG[4] 2007 Lugano, Switzerland, August 2007.

72. Paper presentation: *"Practical, Pluggable Types."* International Conference on Dynamic Languages (ICDL 2007), Lugano, Switzerland, August 2007.

73. Paper presentation: *"Type Feedback for Bytecode Interpreters."* ICOOOLPS'07 Workshop at ECOOP 2007. Berlin, Germany, July 2007.

74. Demo: *"Reflectivity."* Dynamic Languages Workshop at ECOOP 2007, Berlin, July 2007.

75. Paper Presentation: *"Sub-Method Reflection'.'* TOOLS 2007 Zürich, Switzerland, June 2007.

76. Invited talk: *"Squeak Introduction."* University of Siegen, May 2007.

77. Lecture: *"Behavioral Reflection."* Hasso Plattner Institute, Potsdam, Germany, December 05, 2006.

78. Lecture: *"Refactoring."* Hasso Plattner Institute, Potsdam, Germany, December 05, 2006.

79. Lecture: *"Working with Bytecode."* University of Bern, fall 2006.

80. Paper presentation: *"Design And Implementation of a Backward-In-Time Debugger."* Net.ObjectDays 2006, Erfurt, Germany, September 2006.

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[4]European Smalltalk User Group

81. Invited talk: *"Squeak News."* ESUG 2006, Prag, September 2006.

82. Paper presentation: *"Unanticipated Partial Behavioral Reflection."* International Smalltalk Conference, (ISC 2006), Prag, September 2006.

83. Invited talk: *"Beyond Text - Methods as Objects."* Hasso Plattner Institute, Potsdam, Germany. April 2006.

84. Paper presentation: *"Software Evolution from the Field: an Experience Report."* ERCIM[5] Working Group on Software Evolution (2006), Lille, France, April 2006.

85. Talk and demo: *"Seaside: Agile Web Application Development with Squeak."* 22nd Chaos Communication Congress (22C3), Berlin, Germany, December 2005.

86. Lecture: *"VMs, Interpreters, JIT."* DCC University of Chile, December 2005.

87. Lecture: *"RBuilder and ByteSurgeon."* DCC University of Chile, December 2005.

88. Paper presentation: *"Runtime Bytecode Transformation for Smalltalk."* ESUG 2005, Brussels, Belgium, August 2005.

89. Talk and demo: *"Croquet: Squeak in 3D."* RMLL[6] 2005, Dijon, France, July 2005.

90. Talk and demo: *"Squeak and Croquet"* LinuxTag05, Karlsruhe, Germany, June, 2005.

91. Invited talk and demo: *"Squeak and Croquet."* PyPy EU Project Meeting, Leysin, Switzerland, January 2005.

92. Talk and demo: *"Squeak and Croquet."* 21st Chaos Communication Congress (21C3), Berlin, Germany, December 2004.

93. Lecture: *"Working with Bytecode."* University of Bern, December 2004.

94. Talk: *"AOStA."* ESUG 2004, Köthen, Germany, September 2004.

95. Talk: *"Squeak e.V.",* ESUG 2004, Köthen, Germany, September 2004.

96. Defense Diplomarbeit (Master): *"Erweiterung eines statischen Übersetzers zu einem Laufzeiübersetzungssystem."* University of Karlsruhe, Spring 2004.

97. Talk: *"A Programming Language Babel."* Squeak Meeting Bern, Fall 2003.

98. Talk: *"A JIT as a System Service."* Squeak Meeting Bern, Fall 2003.

99. Talk and demo: *"Beyond VI."* European Ruby Conference (euroko03), Karlsruhe, Germany, June 2003.

100. Talk and demo: *"Squeak."* GpN2, Entropia e.V. CCC Karlsruhe, May 2003.

101. Talk and demo: *"Squeak als agile Entwicklungsumgebung."* Entwicklertage 2003, February 5, 2003.

102. Defense Studienarbeit (Similar to bachelor project): *"Entwurf von Optimierungen für Squeak."* University of Karlsruhe, January 2003.

103. Talk and demo: *"Einführung in Squeak"* Jahrestagung Fsub e.V., 2002.

104. Talk: *"Neue Medien, Lehr- und Lernsysteme."* University of Karlsruhe, Seminar Multimedia. 1999.

3.4 Memberships

- Pharo Association. *Founding member since 2012*
  http://association.pharo.org

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[5]European Research Consortium for Informatics and Mathematics
[6]Rencontres Mondiales du Logiciel Libre

- Squeak Germany e.V. *Founding member since 2002, (Board 2002 - May 2007)*
  `http://squeak-ev.de`

- European Smalltalk User Group (ESUG). *Board member since 2004*
  `http://www.esug.org`

- Square Bracket Associates, *Founding member (2007)*
  `http://SquareBracketAssociates.org`

- Moose Association, *Founding Member (2007)*
  `http://moose.unibe.ch/`

- Association for Computing Machinery (ACM)
  Student Member since 2001, Member since 2008
  `http://acm.org`

- EAPLS European Association for Programming Languages and Systems, *Member since 2011*
  `http://eapls.org`

- Gesellschaft für Informatik (GI), *Member since 1998*
  `http://gi-ev.de`

- Electronic Frontier Foundation (EFF), *Member*
  `http://www.eff.org`

- Solidarite & Initiative par l'Activite Economique & Educative (SIA2E), *Member*
  `http://sia2e.org`

- Les Amis de la Biere, Member since 2015
  `https://www.amis-biere.org`

- Alumni Organizations:
  - Joint Alumni in computer science of the Universities Bern, Fribourg, Neuchatel, *Member*
    `https://www.jointalumni.ch`

  - AlumniKaTH, *Member*
    `http://www.rsm.kit.edu/alumni.php`

  - Freundeskreis der Fakultät für Informatik (FFI) Karlsruhe, *Member*
    `http://www.ffi-ka.de`

  - Verein der Freunde, Förderer und Ehemaligen Löhrtor e.V., *Member*
    `http://www.gal.de/schulleben/ehemalige.html`

  - Förderverein *Fritz-Busch-Musikschule der Stadt Siegen e. V.*, *Member*
    `http://www.siegen.de/leben-in-siegen/bildung/fritz-busch-musikschule/`

4 Publications

All the papers below have links to download the PDF for free.

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