

Dr.-Ing. Serge Autexier

Curriculum Vitae

Senior Researcher	Address	Bibliothekstr. 1, 28359 Bremen, Germany
Head “Bremen Ambient Assisted Living Lab”	Phone	+49 421 218 59834
RD Cyber-Physical Systems	Fax	+49 421 218 98 59834
Deutsches Forschungszentrum für künstliche Intelligenz (DFKI), Bremen	E-mail	serge.autexier@dfki.de

Academic Degrees and Titles

1. Computer Science studies at Saarland University (subsidiary subject: economics), graduated to *Diplom-Informatiker* (~MSc); Diploma Thesis about “*Heuristics for Guiding Equational Proofs*” (Supervisors: Prof. Dr. J. Siekmann and Prof. Dr. David Basin); grade A (“Sehr Gut”) (1989 – 1996)
2. Doctoral studies, graduated to Dr.-Ing., Thesis about “*Hierarchical Contextual Reasoning*” with the committee Prof. Dr. J. Siekmann, Prof. Dr. F. Pfenning, Prof. Dr. G. Smolka; grade *magna cum laude* (1997 – 2003)

Employments

1. Free lancer at the DFKI GmbH, Saarbrücken in Saarbrücken (November 1996)
2. Scientific Assistant, Saarland University, Prof. Dr. J. Siekmann (December 1996 – December 2001)
3. Researcher at the DFKI GmbH in Saarbrücken (January 2002 – January 2003)
4. Scientific Assistant, Saarland University, Prof. Dr. J. Siekmann & Part-time researcher at the DFKI GmbH in Saarbrücken (February 2003 – December 2003)
5. Researcher at the DFKI GmbH in Saarbrücken (January 2004 – November 2004)
6. Senior Researcher at the DFKI GmbH in Saarbrücken (December 2004 – June 2008)
7. Head of the OMEGA research subgroup (together with Christoph Benzmüller) at the Department of Computer Science, Saarland University (April 2004 – June 2008)
8. Researcher (EPSRC grant), University of Edinburgh, Scotland (May-July 2006)
9. Senior Researcher at the DFKI GmbH, Bremen (Since July 2008)
10. Head of the Bremen Ambient Assisted Living Lab (BAALL) at the DFKI GmbH, Bremen (Since february 2014)

Advanced Training

1. Visiting researcher at the University of Edinburgh, Scotland, Prof. A. Bundy (1997)
2. Types Summer School in Giens, France (1999)
3. Visiting researcher at Carnegie Mellon University, USA, Prof. Frank Pfenning (2000)
4. Visiting researcher at University of Birmingham, England, Dr. Manfred Kerber (2000)
5. NATO Summer School in Marktoberdorf, Germany (2000)
6. Visiting researcher at University of Bremen, Germany, Prof. Bernd Krieg-Brückner (2001)
7. Visiting researcher at Carnegie Mellon University, USA, Prof. Frank Pfenning (2002)
8. Visiting researcher at Yale University, USA, Prof. Carsten Schürmann (2002)
9. Visiting Researcher at the University of Edinburgh, Scotland, Prof. A. Bundy (2006)

Summary of Academic Activities

Serge Autexier has over 50 publications, 9 chapters in books, 4 articles in international journals, and 41 papers at reviewed conferences and workshops. He was involved in more than 50 international conferences and workshops as PC member, chair or organizer, edited 2 conference proceedings and 7 workshop proceedings and guest-editor of 3 special issues in international journals. In 2008 he was the PC co-chair of the 7th International Conference on Mathematical Knowledge Management and in 2010 he was the PC chair of the 10th International Conference on Artificial Intelligence and Symbolic Computation. He is member of the standing committee of the 'User-Interfaces for Theorem Provers' workshop series, co-founder and member of the steering committee of the 'Verification Workshop' series, deputy spokesman of the German Interest group on Automated Deduction (GI FG DedSys), trustee of the Artificial Intelligence and Symbolic Computation conference series, publicity chair of the conference series on intelligent computer mathematics (CICM, since 2013) and was trustee of the Mathematical Knowledge Management interest group (ex-officio 2008-2010, elected 2011-2013).

Selected Publications

- Serge Autexier. *Similarity-Based Diff, Three-Way-Diff and Merge*, International Journal of Software and Informatics (IJSI) 9(2), August, 2015
- Serge Autexier, Dieter Hutter, and Christoph Stahl. *An Implementation, Execution and Simulation Platform for Processes in Heterogeneous Smart Environments*, In Juan Carlos Augusto and Reiner Wichert (Ed) Fourth International Joint Conference on Ambient Intelligence, LNCS, Dublin, Ireland, Springer, December, accepted, forthcoming, 2013
- Serge Autexier, Dieter Hutter, Christian Mandel, and Christoph Stahl. *SHIP-Tool Live: Orchestrating the Activities in the Bremen Ambient Assisted Living Lab (Demo)*, In Juan Carlos Augusto and Reiner Wichert (Ed) Fourth International Joint Conference on Ambient Intelligence, LNCS, Dublin, Ireland, Springer, December, accepted, forthcoming, 2013
- Serge Autexier, Dominik Dietrich, Dieter Hutter, Christoph Lüth, and Christian Maeder. *SmartTies - Management of Safety-Critical Developments*, In Tiziana Margaria and Bernhard Steffen (Ed) Proceedings 5th International Symposium On Leveraging Applications of Formal Methods, Verification and Validation (ISoLa'12), LNCS, Amiranades, Heraclion, Crete, Springer, October, 2012
- Serge Autexier and Normen Müller. *Semantics-Based Change Impact Analysis for Heterogeneous Collections of Documents*, In Michael Gormish and Rolf Ingold (Ed) Proceedings of 10th ACM Symposium on Document Engineering (DocEng2010), Manchester, UK, September, 2010
- Serge Autexier and Dominik Dietrich. *A Tactic Language for Declarative Proofs*, In Matt Kaufmann and Lawrence C. Paulson (Ed) Proceedings International Conference on Interactive Theorem Proving, Vol. 6172, LNCS, p. 99-114, Edinburgh, Scotland, Springer, July, 2010
- Serge Autexier, Jacques Calmet, David Delahaye, Patrick D. F. Ion, Laurence Rideau, Renaud Rioboo, and Alan P. Sexton(Ed) *Proceedings of Conferences on Intelligent Computer Mathematics 2010 (CICM 2010)*, Vol. 6167, LNCS, Springer, CNAM, Paris, France, July, 2010
- Serge Autexier, Petr Sojka, and Masakazu Suzuki(Ed) *Special Issue on Authoring, Digitalization and Management of Mathematical Knowledge*, Vol. 3, Nr. 3 of Journal Mathematics in Computer Science, Birkhäuser Basel, May, 2010
- Serge Autexier, Christoph Benz Müller, Dominik Dietrich, and Jörg Siekmann. *Resource Adaptive Processes in Automated Reasoning Systems*, In Matthew Crocker and Jörg Siekmann (Ed) Resource Adaptive Cognitive Processes, Part III $\dot{\cup}$ Resource-Adaptive Rationality in Machines, LNAI, Springer, p. 389-423, 2009
- Serge Autexier, John Campbell, Julio Rubio, Volker Sorge, Masakazu Suzuki, and Freek Wiedijk(Ed) *Intelligent Computer Mathematics*, Vol. 5144, LNAI, Springer, Birmingham, UK, July, 2008

- Serge Autexier, Armin Fiedler, Thomas Neumann, and Marc Wagner. *Supporting User-Defined Notations when Integrating Scientific Text-Editors with Proof Assistance*, In Manuel Kauers, Manfred Kerber, Robert Miner, and Wolfgang Windsteiger (Ed) Towards Mechanized Mathematical Assistants, LNAI, Springer, June, 2007
- Jörg Siekmann, Christoph Benzmüller, and Serge Autexier. *Computer Supported Mathematics with OMEGA*, Journal of Applied Logic, special issue on Mathematics Assistance Systems 4(4), December, 2006
- Serge Autexier and Claudio Sacerdoti-Coen. *A Formal Correspondence between OMDoc with Alternative Proofs and the LambdabarMuMutilde-Calculus*, In Jon Borwein and Bill Farmer (Ed) Proceedings of MKM'06, Vol. 4108, LNAI, p. 67-81, Springer, August, 2006
- Serge Autexier and Dominik Dietrich. *Synthesizing Proof Planning Methods and Oants Agents from Mathematical Knowledge*, In Jon Borwein and Bill Farmer (Ed) Proceedings of MKM'06, Vol. 4108, LNAI, p. 94-109, Springer, August, 2006
- Mossakowski, Till, Autexier, Serge, and Hutter, Dieter. *Development Graphs - Proof Management for Structured Specifications*, Journal of Logic and Algebraic Programming, special issue on Algebraic Specification and Development Techniques 67(1-2), p. 114-145, April, 2006
- Autexier, Serge. *The CORE Calculus*, In Nieuwenhuis, Robert (Ed) Proceedings of the 20th International Conference on Automated Deduction (CADE-20), Vol. 3632, LNAI, Tallinn, Estonia, Springer, July, 2005
- Autexier, Serge and Hutter, Dieter. *Formal Software Development in Maya*, In Hutter, Dieter and Stephan, Werner (Ed) Festschrift in Honor of J. Siekmann, Vol. 2605, LNAI, Springer, February, 2005
- Autexier, Serge and Schürmann, Carsten. *Disproving False Conjectures*, In Vardi, Moshe Y. and Voronkov, Andrei (Ed) Proceedings of the 10th International Conference on Logic for Programming, Artificial Intelligence, and Reasoning, Vol. 2850, LNAI, p. 33-48, Springer, September, 2003
- Autexier, Serge and Hutter, Dieter. *Maintenance of Formal Software Development by Stratified Verification*, In Baaz, Mathias and Voronkov, Andrei (Ed) Proceedings of LPAR'02, LNCS, Tbilissi, Georgia, Springer, September, 2002
- Autexier, Serge, Hutter, Dieter, Mossakowski, Till, and Schairer, Axel. *The development graph manager MAYA*, In Kirchner, Hélène and Ringeissen, Christophe (Ed) Proceedings 9th International Conference on Algebraic Methodology And Software Technology (AMAST'02), Vol. 2422, LNCS, Springer, September, 2002

Selected Services to the Scientific Community

1. PC Member of the *10th International Conference on Knowledge Science, Engineering and Management (KSEM 2017)*, Melbourne, Australia (19-20 August 2017)
2. PC Member of the *Zukunft Lebensräume Kongress*, Frankfurt am Main, Germany (20-21 April 2016)
3. PC Member of the *8th International Conference on Knowledge Science, Engineering and Management (KSEM 2015)*, Chongqing, China (28-30 October 2015)
4. PC Member of the *Euromicro Conference on Digital System Design (DSD), ASHWPA Special Session Advanced Systems in Healthcare, Wellness and Personal Assistance*, Funchal, Madeira, Portugal (26-28 August 2015)
5. Steering Committee of the *International Conference on Intelligent Computer Mathematics*, (since 2013)
6. Co-organiser and PC Member of the *International Conferences on Intelligent Computer Mathematics (CICM'12)*, Bremen, Germany (09-13 July 2012)
7. PC Member of the *International Conference on Intelligent Computer Mathematics*, Bertinoro, Italy (17-23 July 2011)

8. Trustee of the *Mathematical Knowledge Management Interest Group*, (December 2010-July 2013)
9. PC Member of the *9th Mexican International Conference on Artificial Intelligence*, Pachuca, Mexico (08-13 November 2010)
10. PC Member of the *9th Workshop on User-Interfaces for Theorem Provers (UITP'10)* in connection with ITP'10 at FLOC'10, Edinburgh, Scotland (20th July 2010)
11. Co-chair and Co-organiser of the *6th Verification Workshop (VERIFY'10)* in connection with IJ-CAR'10 at FLOC'10, Edinburgh, Scotland (20-21 July 2010)
12. PC Member of the *9th International Conference on Mathematical Knowledge Management* in connection with CICM 2010, Paris, France (09-10 July 2010)
13. Chair of the *10th International Conference on Artificial Intelligence and Symbolic Computation* in connection with CICM 2010, Paris, France (05-06 July 2010)
14. PC Member of the *4th Workshop on Programming Languages for Mechanized Mathematics Systems* in connection with CICM 2010, Paris, France (05th July 2010)
15. Trustee of the *Artificial Intelligence and Symbolic Computation Conference Series (AISC)* , (08th March 2010)
16. PC Member of the *16th Symposium on the Integration of Symbolic Computation and Mechanised Reasoning (CALCULEMUS'09)* in connection with CICM'09, Canada (06-07 July 2009)
17. Co-chair of the *7th International Conference on Mathematical Knowledge Management (MKM'08)* in connection with CICM'08, Birmingham, UK (28-30 July 2008)
18. Deputy spokesman of the *German Interest Group on Automated Deduction*, (May 2008-June 2014)
19. PC Member of the *Workshop on Empirically Successful Automated Reasoning in Large Theories (ESARLT)* in connection with CADE'07, IUB, Bremen, Germany (16th July 2007)
20. PC Member of the *4th Verification Workshop (VERIFY'07)* in connection with CADE-21, IUB, Bremen, Germany (15-16 July 2007)
21. PC Member of the *6th International Workshop on the Implementation of Logics* in connection with LPAR 2006, Phnom Penh, Cambodia (12th November 2006)
22. Co-chair and Co-organiser of the *Seventh Workshop on User-Interfaces for Theorem Provers (UITP'06)* in connection with IJCAR'06 at FLOC'06, Seattle, USA (21st August 2006)
23. Co-chair and Co-organiser of the *3rd Verification Workshop (VERIFY'06)* in connection with IJ-CAR'06 at FLOC'06, Seattle, USA (15-16 August 2006)
24. Organiser of the *Workshop "Trustworthy Software"*, Saarland University, Saarbrücken, Germany (18-19 May 2006)
25. Co-organiser of the *Theorema-Ultra-Omega'05 Workshop*, Saarland University, Germany (14-15 November 2005)
26. Co-organiser of the *Theorema-Omega'03 Workshop*, Schloss Hagenberg, Linz, Austria ()
27. Co-chair and Co-organiser of the *Verification Workshop (VERIFY'02)* in connection with CADE'02 at FLOC'02, Copenhagen, Denmark (July 2002-November 2010)
28. Co-chair and Co-organiser of the *Verification Workshop (VERIFY'01)* in connection with IJCAR'01, Siena (19th June 2001)

Editorial Boards

1. International Journal for Information Security (IJIS), Special issue of selected papers from FCS/Verify'02, 4(1-2), 2005 (with Iliano Cervesato and Heiko Mantel)
2. Verify Workshop proceedings 2001, 2002, 2006 (with Heiko Mantel)
3. UITP'06 workshop proceedings, 2006 (with Christoph Benzmüller)
4. "Trustworthy Software" workshop proceedings, 2006 (with Stephan Merz, Leon van der Torre, Reinhard Wilhelm and Pierre Wolper)
5. Journal of Automated Reasoning, Special Issue on Formal Modeling and Verification of Critical

- Systems, 2008 (with Heiko Mantel, Stephan Merz and Tobias Nipkow)
6. Journal Mathematics in Computer Science, Special Issue on Authoring, Digitalization and Management of Mathematical Knowledge, 2009 (with Petr Sojka and Masakazu Suzuki)

Bremen, July 26, 2017.