

Lebenslauf

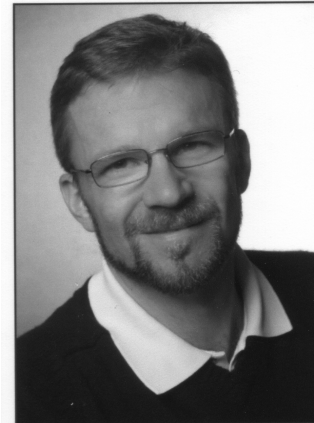
Personalien

Peter Leupold

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Homepage: www.wortspieler.org

Geb.: 1. September 1974, Hof, Deutschland

Nationalität: Deutsch

Familienstand: ledig

Schulbildung

1980-1984	Grundschule Helmbrechts (1.-4. Klasse)
1984/1985	Hauptschule Helmbrechts (5. Klasse)
1985-1992	Gymnasium Münchberg (5.-11. Klasse)
1992/1993	Crane High School, Crane, Texas, USA (12. Klasse)
1993-1995	Gymnasium Münchberg (12.-13. Klasse), Abitur (Note 1,3)

Universitätsbildung

1996-2002	Studium der Informatik und Linguistik an der Friedrich Schiller Universität Jena (FSU)
3/2002	Abschluß als Diplominformatiker (cum laude) Thema der Diplomarbeit: Potenzen von Sprachen Betreuer: Gerhard Lischke
2002-2006	Teilnahme an der <i>PhD-School in Formal Languages and Ap- plications</i> , Universitat Rovira i Virgili, Tarragona, Spanien

11/2006 Verteidigung der Dissertation
(excellent cum laude per unanimat)
Thema: Languages Generated by Iterated Idempotencies
Betreuer: Juhani Karhumäki (Turku), Victor Mitrana (Tarragona, Bucarest)

Anstellungen/Stipendien

2002 Austauschstipendium für Doktoranden des Spanischen Aus-
senministeriums (Programm Becas MAE)

2003-2006 Doktorandenstipendium des Spanischen Ministeriums für Er-
ziehung und Wissenschaft (Programm FPU)

2003-2006 Doktorandenstipendium der Generalitat de Catalunya (nicht
wahrgenommen)

2007–2009 Postdoktorand an der Kyoto Sangyo Universität mit einem
Stipendium der Japanese Society for the Promotion of Science
(Vorauswahl in Deutschland durch die Alexander von Humboldt-
Stiftung)

seit 10/2009 Rückkehrstipendiat der Humboldt-Stiftung an der Universi-
tät Kassel, Projekt *String-Rewriting in Natural Computing*

2010-2012 Beatriu de Pinós-Forscher der Generalitat de Catalunya an
der Rovira i Virgili University, Tarragona

seit 1/2013 Wissenschaftlicher Mitarbeiter an der Universität Leipzig

Eingeworbene Drittmittel

2007-9 *Grant-in-Aid for Scientific Research* der Japanese Society for
the Promotion of Science (2,400,000 Yen),
Projekt *Idempotency Closure of Languages*.

Forschungsaufenthalte

10 / 2002 Zwei Wochen in Ungarn (Budapest, Győr, Szombathely)

9 / 2003 Zwei Wochen in Ungarn (Budapest, Debrecen, Szombathe-
ly)

6-12 / 2004	Universität Turku/ Turku Center for Computer Science
9-12 / 2005	Kyoto Sangyo Universität
6-8 / 2006	Universität Turku/ Turku Center for Computer Science
3 / 2010	Kyoto Sangyo University
3 / 2011	Kyoto Sangyo University
2 / 2012	Kyoto Sangyo University
7 / 2012	Universität Leipzig (eine Woche)

Eingeworbene Fördermittel

2007-9	<i>Grant-in-Aid for Scientific Research</i> der Japanese Society for the Promotion of Science (2.400.000 Yen), Projekt <i>Idempotency Closure of Languages</i> .
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Gutachtertätigkeit für

Zeitschriften

Information Sciences

Theoretical Computer Science

Information and Computation

Discrete Applied Mathematics

Journal of Computer and System Sciences

Journal of Automata, Languages and Combinatorics

International Journal of Computer Mathematics

Frontiers of Computer Science in China

Mathematics Applied in Science and Technology

Publicationes Mathematicae Debrecen

Romanian Journal of Information Science and Technology

Konferenzen

International Colloquium on Automata, Languages and Programming (ICALP) 2011

Developments in Language Theory (DLT) 2007, 2008, 2009, 2013

Mathematical Foundations of Computer Science (MFCS) 2004

Computer Science in Russia 2013

International Workshop on The Complexity of Simple Programs 2008

International Conference on Implementation and Application of Automata (CIAA) 2009

Languages and Automata, Theory and Applications (LATA) 2009, 2010

Computability in Europe 2010

International Conference on Implementation and Application of Automata 2010

International Conference on Bio-Inspired Models of Network, Information, and Computing Systems 2010

Mitarbeit in Programmkomitees

5th International Workshop on Non-Classical Models of Automata and Applications (NCMA), Umea, 2013.

Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS), Salamanca, 2011

Special session: Bio-Inspired and Multi-Agents Systems: Applications to Languages

International ICST Conference on Bio-Inspired Models of Network, Information and Computing Systems (BIONETICS), Boston, 2010

Track: Artificial Life and Bio-inspired Robotics

Mitarbeit in Organisationskomitees

Languages and Automata, Theory and Applications (LATA),
San Sebastian, 2013.

Languages and Automata, Theory and Applications (LATA),
A Coruña, 2013.

Languages and Automata, Theory and Applications (LATA),
Tarragona, 2011.

International Work-Conference on Linguistics, Biology and
Computer Science: Interplays, Tarragona, 2010

Developments in Language Theory (DLT), Kyoto, 2008

Automata, Formal Languages and Algebraic Systems (AFLAS),
Kyoto, 2008

Eingeladene Vorträge

2002	Eötvös Lorand University Budapest, University Győr, Szombathely College
2003	University Debrecen, Eötvös Lorand University Budapest, Szombathely College
2004	University Jena, University Turku
2005	Kyoto Sangyo University, Shizuoka Institute of Technology, Waseda University Tokyo
2006	University Turku
2007	Shizuoka Institute of Technology
2008	Toho University, Shizuoka Institute of Technology
2009	Toho University, Humboldt Network Congress (Heidelberg)
2010	University of Kassel (Computational Algebra Group), Kyoto Sangyo University, University of Kyushu, Tokyo University (Nanophotonics Group), University of Aizu, University of the Witwatersrand, Johannesburg
2011	Kyoto Sangyo University
2012	Kyoto Sangyo University, University of Leipzig

Mitgliedschaft in Kommissionen bei Verteidigungen von Dissertationen

Alexander Krassovitskiy, University of Tarragona, 2011

Robert Mercas, University of Tarragona, 2010 (stellv. Mitglied)

Mitgliedschaften

European Association for Theoretical Computer Science (EAT-CS)

Computability in Europe (CiE)

Gesellschaft für Informatik (GI) - Fachgruppe Automaten und Formale Sprachen

Weitere erwähnenswerte Aktivitäten

1993	Mitglied des Texas State Champion Team in Number Sense
1995/1996	Ein Jahr Kriegsdienst in der Luftwaffe, FlaRakGrp 21, Manching
Aug/Sep 2000	Praktikum bei Cerner Software Corporation, Kansas City, USA
1998-2001	Drei Jahre Mitglied des Fachschaftsrates Informatik, Ein Jahr als Sprecher
1999-2001	Zwei Jahre Mitglied des Fakultätsrates der Fakultät für Mathematik und Informatik
2000-2002	Zwei Jahre Mitglied des Studentenrates der FSU, Drei Semester im Vorstand
2001/2002	Ein Jahr Sprecher der Konferenz Thüringer Studentenschaften
2001/2002	Ein Jahr studentisches Vorstandsmitglied der Thüringer Hochschulkonferenz
1995–jetzt	Über 30 Marathon- und ähnliche Läufe
2007–jetzt	Artikel für die Zeitschriften <i>La Directa</i> , <i>Catalunya</i> und <i>Paraules per la Pau</i> (alle auf Katalanisch)
2008–jetzt	Internetadministrator der Konsumentenkooperative <i>El Gínjol</i> (Perl, Datenbank)

Hobbies

Ausdauerlauf

Bergsteigen, Schitouren

Politik

Sprachen

Deutsch, Englisch (fließend)

Katalanisch, Spanisch (gut)

Japanisch, Latein (Grundkenntnisse)

Lehrtätigkeit

- WS 2010/2011 Vorlesung *Stringologie*. Universität Kassel, 3+1 SWS.
- WS 2009/2010 Vorlesung *Biochemisch Inspirierte Berechnungen*. Universität Kassel, 3+1 SWS.
- 2006 Einführungsveranstaltung *Discrete Mathematics und Logics* zur PhD School *Formal Languages and Applications*, Universität Rovira i Virgili, Tarragona, 3 Tage (mit A. Alhazov und R. Loos).
- 2005 Einführungsveranstaltung *Discrete Mathematics und Logics* zur PhD School *Formal Languages and Applications*, Universität Rovira i Virgili, Tarragona, 3 Tage (mit A. Alhazov).

Hochschuldidaktische Ausbildung

- 3 2013 Kurs "Gesprächsführung in kritischen Beratungssituationen" am Hochschuldidaktischen Zentrum der Universität Leipzig
- 5/6 2010 Kurs "Lehren mit aktivierenden Methoden" am Service-Center Lehre der Universität Kassel
- 4/5 2010 Kurs "Stimm- und Sprechtraining für die Lehre" am Service-Center Lehre der Universität Kassel

Wissenschaftliche Veröffentlichungen

Bücher

- [1] P. LEUPOLD and F. OTTO: *String-Rewriting and Natural Computing*. In preparation.
- [2] P. LEUPOLD: *One-Directional Non-Counting Languages: The Anti-Symmetric Case of Brzowski's Problem*. VDM Verlag, Saarbrücken, 2009, 116 pages.

Zeitschriften

- [3] P. LEUPOLD and F. OTTO: *On McNaughton Families of Languages That Are Specified by Some Variants of Monadic String-Rewriting Systems*. In: *Fundamenta Informaticae* 112, 2011, pp. 219–238.
- [4] M. ITO, P. LEUPOLD, F. MANEA and V. MITRANA: *Bounded Hairpin Completion*. In: *Information and Computation* 209, 2011, pp. 471–485.
- [5] M. CAVALIERE and P. LEUPOLD: *Computing by Observing: Simple Systems and Simple Observers*. In: *Theoretical Computer Science* 412(1-2), 2011, pp. 113–123.
- [6] P. LEUPOLD and B. NAGY: *5' → 3' Watson-Crick Automata With Several Runs*. In: *Fundamenta Informaticae* 104(1-2), 2010, pp. 71–91.
- [7] P. LEUPOLD F. MANEA and R. LOOS: *Complexity Aspects of the Recognition of Context-Free Languages by AHNEPs*. In: *Romanian Journal of Information Science and Technology* 12, 2009, 219–233.
- [8] M. CAVALIERE, N. JONOSKA, and P. LEUPOLD: *DNA splicing: computing by observing*. In: *Natural Computing* 9 (1), 2009, pp. 157–170.
- [9] P. LEUPOLD and V. MITRANA: *Uniformly Bounded Duplication Codes*. In: *RAIRO Informatique Théorique* 41 (4), 2007, pp. 411–424.
- [10] P. LEUPOLD: *Languages Generated by Iterated Idempotencies*. In: *Theoretical Computer Science* 370(1-3), 2007, pp. 170–185.
- [11] M. CAVALIERE and P. LEUPOLD: *Observation of String-Rewriting Systems*. In: *Fundamenta Informaticae* 74(4), 2006, pp. 447–462.

- [12] P. LEUPOLD, C. MARTÍN VIDE and V. MITRANA: *Uniformly Bounded Duplication Languages*. In: Discrete Applied Mathematics Vol 146, Iss 3, 2005, pp. 301–310.
- [13] J. CASTELLANOS, P. LEUPOLD, and V. MITRANA: *On the Size Complexity of Hybrid Networks of Evolutionary Processors*. In: Theoretical Computer Science 330, 2005, pp. 205–220.
- [14] P. LEUPOLD: *Languages of Partial Words - How to Obtain Them and What Properties They Have*. In: Grammars, Vol 7, 2004, pp. 179–192.
- [15] M. CAVALIERE and P. LEUPOLD: *Evolution and Observation — A Non-Standard Way to Generate Formal Languages*. In: Theoretical Computer Science 321, 2004, pp. 233–248.

Konferenzen und Bände mit Begutachtung

- [16] A. KRASSOVITSKIY and P. LEUPOLD: *Computing by Observing Insertion*. In: Proceedings of Languages, Automata Theory and Applications 2012, Lecture Notes in Computer Science 7183, Springer, Berlin, 2012, pp. 377–388.
- [17] S. FAZEKAS, P. LEUPOLD and K. SHIKISHIMA-TSUJI: *Avoidability of Primitive Palindromes*. In: Automata and Formal Languages, 13th Intl. Conf, Proceedings. College of Nyíregyháza, 2011, pp. 184–196.
- [18] P. LEUPOLD and F. OTTO: *On McNaughton Families of Languages Specified by Certain Variants of Monadic String-Rewriting Systems*. In: Workshop on Non-Classical Models for Automata and Applications - NCMA 2010, Series *books@ocg.at* (263), Austrian Computer Society, Graz 2010, pp. 113–126.
- [19] N. HUNDESHAGEN and P. LEUPOLD: *Transducing by Observing*. In: Workshop on Non-Classical Models for Automata and Applications - NCMA 2010, Series *books@ocg.at* (263), Austrian Computer Society, Graz 2010, pp. 85–98.
- [20] P. LEUPOLD and A. MEDUNA: *Finitely Expandable Deep PDAs*. In: M. Ito, Y. Kobayashi, K. Shoji: Automata, Formal Languages and Algebraic Systems 2008, World Scientific, London, 2010, pp. 113–124.
- [21] P. LEUPOLD: *Primitive Words are Unavoidable for Context-free Languages*. In: Proceedings of Languages, Automata Theory and Applications 2010, Lecture Notes in Computer Science 6031, Springer, Berlin, 2010, pp. 403–413

- [22] M. CAVALIERE and P. LEUPOLD: *Computing by Observing Change*. In: Proceedings of 4th International Workshop on Natural Computing, Springer, Tokyo 2010, pp. 133–140.
- [23] P. LEUPOLD: *Reducing Repetitions*. In: Proceedings of Prague Stringology Days, Prague, 2009, pp. 225–236.
- [24] P. LEUPOLD and B. NAGY: *m-run $5' \rightarrow 3'$ Watson-Crick automata*. In: Workshop on Non-Classical Models for Automata and Applications - NCMA 2009, Series *books@ocg.at* (256), Austrian Computer Society, Graz, 2009, pp. 167–180.
- [25] M. ITO, P. LEUPOLD, and V. MITRANA: *Bounded Hairpin Completion*. In: Proceedings of Languages, Automata Theory and Applications 2009, Lecture Notes in Computer Science 5457, Springer, Berlin, 2009, pp. 434–445.
- [26] P. LEUPOLD and A. MEDUNA: *Finitely Expandable Deep Push-Down Automata*. In: Masami Ito, Yuji Kobayashi and Kunitaka Shoji (eds.): *Automata, Formal Languages and Algebraic Systems*, World Scientific, Singapore, 2009, pp. 31–41.
- [27] P. LEUPOLD: *How to Pop a Deep PDA Matters*. In: Automata and Formal Languages, 12th International Conference AFL, Proceedings, ISBN 978-963-311-367-7, Győr, 2008.
- [28] P. LEUPOLD: *On Regularity Preservation by String-Rewriting Systems*. Proceedings of Languages, Automata Theory and Applications 2008, Lecture Notes in Computer Science 5196, Springer, Berlin, 2008, pp. 345–356.
- [29] P. LEUPOLD: *Duplication Roots*. In: Developments in Language Theory 2007, Lecture Notes in Computer Science 4588, Springer, Berlin, 2007, pp. 290–299.
- [30] M. ITO, P. LEUPOLD, and K. SHIKISHIMA-TSUJI: *Closure of Language Classes under Bounded Duplication*. In: Developments in Language Theory 2006, Lecture Notes in Computer Science 4036, Springer, Berlin, 2006, pp. 238–247.
- [31] M. CAVALIERE, N. JONOSKA, and P. LEUPOLD: *DNA Splicing: Computing by Observing*. In: DNA 11, Lecture Notes in Computer Science 3354, Springer, Berlin, 2005, pp. 152–162.
- [32] P. LEUPOLD: *Partial Words for DNA Coding*. In: DNA 10, Lecture Notes in Computer Science 3384, Springer, Berlin, 2005, pp. 224–234.

- [33] P. LEUPOLD: *n-Bounded Duplication Codes*. Proceedings of the ICALP-Workshop on Words, Avoidability, Complexity, Turku 2004. Technical Report 2004-07, Laboratoire de Recherche en Informatique d'Amiens, Amiens 2004.
- [34] M. CAVALIERE and P. LEUPOLD: *Evolution and Observation — A Non-Standard Way to Accept Formal Languages*. In: MCU 2004, Lecture Notes in Computer Science 3354, Springer-Verlag, Berlin, 2005, pp. 152–162.
- [35] P. LEUPOLD, V. MITRANA and J. SEMPERE: *Formal Languages Arising from Gene Repeated Duplication*. In: Aspects of Molecular Computing. Essays Dedicated to Tom Head on the Occasion of his 70th Birthday. LNCS 2950, Springer Verlag, Berlin, 2004, pp. 297–308.
- [36] M. CAVALIERE and P. LEUPOLD: *Evolution and Observation – A New Way to Look at Membrane Systems*. In: Membrane Computing, International Workshop, WMC 2003, Revised Papers. Lecture Notes in Computer Science 2933, Springer-Verlag, Berlin, 2004, pp. 70–87.
- [37] P. LEUPOLD: *Some Properties of Context-Free Languages Related to Primitive Words*. In: Preproceedings of WORDS'03, TUCS General Publications, Turku, 2003.
- [38] S. HORVÁTH, P. LEUPOLD and G. LISCHKE: *Roots and Powers of Regular Languages*. In: Developments in Language Theory 2002, Lecture Notes in Computer Science 2450, Springer-Verlag, Berlin, 2002, pp. 220–230.

Eingeladene Konferenzbeiträge

- [39] P. LEUPOLD: Beobachtersysteme. Theorietag Formale Sprachen, September 2010.
- [40] P. LEUPOLD: *How to make Biological Systems Compute: Simply Observe Them*. In: Proceedings of the 3rd International Conference on Bio-Inspired Models of Network, Information and Computing Systems BIONETICS'08, 2nd Workshop on Computing and Communications from Biological Systems: Theory and Applications, Hyogo, 2008, The ACM Digital Library, pp. 1–6.
- [41] M. CAVALIERE and P. LEUPOLD: *Complexity through the Observation of Simple Systems*. International Workshop on The Complexity of Simple Programs. Cork University Press, Cork, 2008, pp. 23–34.

Sonstige Konferenzen und Bände

- [42] P. LEUPOLD and A. MEDUNA: *Finitely Expandable Deep PDAs*. Automata, Formal Languages and Algebraic Systems, Proceedings in CD-ROM, Kyoto, 2008.
- [43] P. LEUPOLD: *Regularity Preservation by String-Rewriting Systems Based on Periods*. To appear in: Proceedings Workshop Algorithmic and Computational Theory in Algebra and Languages, Research Institute for Mathematical Sciences, Kyoto, Kokyuruko Series, 2008.
- [44] P. LEUPOLD: *Duplication Roots – Extended Abstract*. In: Proceedings Theoretischer Tag Automaten und Formale Sprachen, TU Wien, Wien, 2006, pp. 91–93.

Akademische Arbeiten

- [45] P. LEUPOLD: *Languages Generated by Iterated Idempotencies*. Dissertation, Universität Rovira i Virgili, Tarragona, 2006.
- [46] P. LEUPOLD: *Potenzen von Sprachen*. Diplomarbeit, Friedrich-Schiller-Universität Jena, 2002.
- [47] P. LEUPOLD: *Primitive Wörter*. Studienarbeit, Friedrich-Schiller-Universität Jena, 2001.

Sonstige

- [48] P. LEUPOLD: Sequence A160675, Cardinalities of Duplication Roots. In: N. J. A. Sloane : The On-Line Encyclopedia of Integer Sequences. <http://oeis.org/A160675>, 2009.