

## Andreas Witzel

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CONTACT INFORMATION	Courant Institute of Mathematical Sciences New York University 715 Broadway, Room 1010 New York, NY 10003 USA	<i>Tel:</i> +1 (212) 998-3371 <i>Fax:</i> +1 (212) 998-3484 <i>E-mail:</i> awitzel at nyu dot edu <i>WWW:</i> <a href="http://www.andreaswitzel.de">http://www.andreaswitzel.de</a>
RESEARCH INTERESTS	Primary: multi-agent systems, game theory, epistemic logic, artificial intelligence Secondary: formal approaches to cognitive science, social networks	
REFERENCE CONTACTS	<b>Prof. Krzysztof R. Apt</b> CWI, Amsterdam, Netherlands	(Ph.D. supervisor)
	<b>Dr. Ulle Endriss</b> ILLC, Universiteit van Amsterdam, Netherlands	(Ph.D. committee)
	<b>Prof. Rohit Parikh</b> The Graduate Center, City University of New York, USA	(Ph.D. committee)
EDUCATION	<b>Universiteit van Amsterdam</b> , Netherlands and <b>CWI</b> , Amsterdam, Netherlands	<b>2006-2009</b>
	Ph.D., Institute for Logic, Language and Computation	
	<ul style="list-style-type: none"><li>• Title: <i>Knowledge and Games: Theory and Implementation</i></li><li>• Advisor: Prof. Krzysztof R. Apt</li><li>• Committee: Prof. J. F. A. K. van Benthem, Prof. D. J. N. van Eijck, Prof. B. Löwe, Prof. J.-J. Ch. Meyer, Prof. R. Parikh, Dr. U. Endriss</li><li>• Areas of study: Game theory, epistemic logic, distributed computing</li></ul>	
	<b>Technische Universität Dresden</b> , Germany	<b>2003-2006</b>
	M.Sc., International Center for Computational Logic	
	<ul style="list-style-type: none"><li>• Title: <i>Neural-Symbolic Integration – Constructive Approaches</i></li><li>• Supervisors: Prof. Steffen Hölldobler, Sebastian Bader, Dr. Pascal Hitzler</li></ul>	
	<b>Chalmers Tekniska Högskola</b> , Göteborg, Sweden	<b>2002-2003</b>
	Erasmus student, Department of Computer Science and Engineering	
	<b>Universität Freiburg</b> , Germany	<b>2000-2002</b>
	Pre-diploma, Department of Computer Science	
	<b>Rotteck-Gymnasium Freiburg</b> , Germany	<b>1990-1999</b>
	A-levels, major in mathematics and physics	
FELLOWSHIPS	European Commission Marie Curie Early Stage Research Fellowship <ul style="list-style-type: none"><li>• Research Training Site GLoRiClass ("Games in Logic Reaching Out for Classical Game Theory")</li></ul>	<b>2006-2009</b>
	European Commission Erasmus scholarship	<b>2002</b>
RESEARCH VISITS	4 months at The Graduate Center, City University of New York, USA <ul style="list-style-type: none"><li>• Visited Prof. Rohit Parikh</li><li>• Joint research on various topics in game theory and epistemic logic</li></ul>	<b>2008</b>
	4 months at Sony Computer Science Lab, Paris, France <ul style="list-style-type: none"><li>• Language research group, Fluid Construction Grammars</li><li>• Programming in C++ and LISP</li></ul>	<b>2004</b>

ACADEMIC  
EXPERIENCE

Supervising graduate students:

- Cooperative agent based systems, Delft University of Technology, Netherlands **2009**
- Project on Knowledge-based Obligation, City University of New York, USA **2008**

Teaching assistant:

- Cooperative Game Theory **2007**
- Introduction to Logic in Computer Science **2006**
- Introduction to Computer Science **2001**

PUBLICATIONS

Journal papers:

- A generic approach to coalition formation. Krzysztof R. Apt and Andreas Witzel. *International Game Theory Review*, 11(3):347–367, 2009.

Conference/workshop papers:

- Strategy elimination in games with interaction structures. Andreas Witzel, Krzysztof R. Apt, and Jonathan A. Zvesper. In *Proceedings of the 2nd Workshop on Logic, Rationality and Interaction (LORI-II)*, 2009. Springer, LNAI.
- Common knowledge in interaction structures. Krzysztof R. Apt, Andreas Witzel, and Jonathan A. Zvesper. In *Proceedings of Twelfth conference on Theoretical Aspects of Rationality and Knowledge (TARK XII)*, 2009.
- Thief Belief. Ethan Kennerly, Andreas Witzel, and Jonathan A. Zvesper. In *Logic and the Simulation of Interaction and Reasoning 2 workshop at IJCAI-09*, 2009.
- Explicit knowledge programming for computer games. Andreas Witzel, Jonathan Zvesper, and Ethan Kennerly. In *Proceedings of the Fourth Artificial Intelligence and Interactive Digital Entertainment Conference (AIIDE)*, 2008.
- Symmetric and synchronous communication in peer-to-peer networks. Andreas Witzel. In *Proceedings of the 9th International Conference on Mathematics of Program Construction (MPC)*, 2008. Springer, LNCS.
- Logic-based preference languages with intermediate complexity. Joel Uckelman and Andreas Witzel. In *4th Multidisciplinary Workshop on Advances in Preference Handling (M-PREF at AAI)*, 2008.
- Strategic games with interaction structures. Krzysztof R. Apt, Andreas Witzel, and Jonathan A. Zvesper. In *8th Conference on Logic and the Foundations of Game and Decision Theory (LOFT)*, 2008.
- Epistemic logic and explicit knowledge in distributed programming (short paper). Andreas Witzel and Jonathan A. Zvesper. In *Proceedings of the 7th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2008.
- Higher-order knowledge in computer games. Andreas Witzel and Jonathan A. Zvesper. In *Proceedings of the AISB Symposium on Logic and the Simulation of Interaction and Reasoning*, 2008.
- A fully connectionist model generator for covered first-order logic programs. Sebastian Bader, Pascal Hitzler, Steffen Hölldobler, and Andreas Witzel. In *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI)*, 2007.
- Integrating first order logic programs and connectionist systems – a constructive approach. Sebastian Bader, Pascal Hitzler, and Andreas Witzel. In *Proceedings of the IJCAI Workshop on Neural-Symbolic Learning and Reasoning (NeSy)*, 2005.

Book sections:

- The core method: Connectionist model generation for first-order logic programs. Sebastian Bader, Pascal Hitzler, Steffen Hölldobler, and Andreas Witzel. In *Perspectives of Neural-Symbolic Integration*, volume 77 of *Studies in Computational Intelligence*, pages 205–232. Springer, October 2007.

TALKS/LECTURES	<p>Some recent talks:</p> <ul style="list-style-type: none"> <li>• Knowledge and Planning Groningen joint Oberseminar, April 2009</li> <li>• Communication, knowledge, and strategy elimination Invited talk at AT&amp;T Labs theory seminar, August 2008</li> <li>• Strategic Games with Interaction Structures Logic and Games seminar at CUNY, August 2008</li> </ul> <p>Lectures taught as parts of courses:</p> <ul style="list-style-type: none"> <li>• Cooperative Game Theory: Imputations and the Core, February 2009</li> <li>• Cooperative Game Theory: A Generic Approach to Coalition Formation, May 2008</li> <li>• Introduction to Logic in Computer Science: Description Logics Crash Course, November 2006</li> </ul>	
PRACTICAL EXPERIENCE	<p><b>Technische Universität Dresden</b>, Germany</p> <p>Translated book “Logik und Logikprogrammierung” into English <b>2004</b></p> <p>Transcribed lecture “Logic-Based Knowledge Representation” in L<sup>A</sup>T<sub>E</sub>X <b>2004</b></p> <p><b>Henhappl&amp;Babinsky Dispatch Management and Routing Systems</b>, Freiburg, Germany</p> <p>Part-time employment as programmer (C++, C#) <b>1999-2003</b></p> <p><b>Universität Freiburg</b>, Germany</p> <p>Programming job (Smalltalk), Psychologisches Institut <b>1997-1998</b></p> <p><b>isys software</b>, Freiburg, Germany</p> <p>Programming job (magik / Smallworld GIS) <b>1997</b></p>	
TECHNICAL SKILLS	C++, C, Java, Perl, PHP, BASH, Smalltalk, Python, Prolog, LISP, SQL, L <sup>A</sup> T <sub>E</sub> X	
LANGUAGE SKILLS	<p>German (native)</p> <p>English (fluent)</p> <p>Dutch, Swedish, French (advanced)</p> <p>Spanish, Polish (conversational)</p> <p>Korean (basic)</p> <p>Latin (Großes Latinum), Ancient Greek (staatliches Graecum)</p>	
EXTRA-CURRICULAR ACTIVITIES	<p><i>Community service</i>, Arbeiterwohlfahrt Freiburg, Germany <b>1999-2000</b></p> <ul style="list-style-type: none"> <li>• Individual care for a completely paralyzed person</li> </ul> <p>Deutsche SchülerAkademie <b>1997</b></p> <ul style="list-style-type: none"> <li>• Summer school for gifted and motivated high school students</li> <li>• Followed course on object-oriented programming in Smalltalk</li> </ul> <p>Freiburg-Seminar for Mathematics and Natural Sciences <b>1995-1999</b></p> <ul style="list-style-type: none"> <li>• Seminar for highly gifted high school students</li> <li>• Followed courses on mathematics and computer science</li> </ul> <p><i>Hobbies</i></p> <ul style="list-style-type: none"> <li>• Arts (photography, cello)</li> <li>• Traveling off the beaten path (backpacking, CouchSurfing)</li> <li>• Languages and linguistics (comparative linguistics, etymology, phonology)</li> <li>• Sports (mountain and road biking, cross-country skiing, hiking, rock climbing)</li> </ul>	

New York, February 2010