

MIROSLAW TRUSZCZYŃSKI

RESEARCH INTERESTS

Logic-based artificial intelligence, nonmonotonic reasoning, logic programming, answer set programming, prepre-
senting and reasoning about preferences, applications in knowledge representation

ACADEMIC TRAINING

1980 Ph.D. in Mathematics, Warsaw University of Technology, Warsaw, Poland

1978 M.Sc. in Mathematics, Warsaw University of Technology, Warsaw, Poland

EMPLOYMENT HISTORY

1991 — *Professor*, Computer Science, University of Kentucky (CS Department Chair: 1993-2007)

1987 — 1991 *Associate Professor*, Department of Computer Science, University of Kentucky

1984 — 1987 *Visiting Assistant Professor*, Department of Computer Science, University of Kentucky

1980 — 1984 *Assistant Professor*, Institute of Mathematics, Warsaw University of Technology, Warsaw, Poland

SCIENTIFIC ACTIVITIES

- Author of over 150 publications in refereed journals and conference proceedings; co-author of a research monograph, and co-editor of six conference proceedings and paper collections
- General co-Chair: ICLP-2011
- General Chair: KR-2010
- PC co-Chair: ICLP-06, LPNMR-01, NMR-00
- Member of program committees (since 2004 only): IJCAI-09 (senior PC member), IJCAI-2011 (area head), AAAI-04 (senior PC member), AAAI-05, AAAI-06, AAAI-07, AAAI-08, AAAI-2010, LPNMR-06, LPNMR-05, SAT-05, SAT-09, SAT-2010, JELIA-08, JELIA-06, JELIA-04, KR-08, KR-06, KR-04, NMR-04
- Invited lectures at 3PCC-2010, CSL-06, NMR-04, ICLP-07 (invited tutorial), ICLP-02 (invited tutorial), AGP-99, LPNMR-97, and at several universities.

RECENT FUNDING

- RI: Small: Qualitative preferences: merging paradigms, extending the language, reasoning about incomplete outcomes, PI NSF, 2009-2012, **\$384,999**
- Toward Unambiguous and Consistent Textual Requirements: An Application of Natural Language Processing Techniques, co-PI (Allen Nicora, JPL, PI, J. Hayes, V. Marek, co-PIs), April 2010 - October 2010, **\$106,000**.
- Programming environment for solving hard optimization problems, PI (V.W. Marek, co-PI), KSEF, 2005-2008, **\$61,000**.
- ITR: Decision-Theoretic Planning with Constraints, co-PI (with six other researchers, Judy Goldsmith, PI), NSF, 2003-2007, **\$1,287,000**. (extended through Summer 2009)
- Nonmonotonic reasoning and computational knowledge representation (PI, V. Marek and R. Finkel, co-PIs), NSF, 2001-2004, **\$550,000**

BOOKS AND EDITED VOLUMES

- Nonmonotonic logics; context dependent reasoning, Springer Verlag, 1993 (with V. Marek)
- Principles of Knowledge Representation and Reasoning: Proceedings of the Twelfth International Conference, KR 2010, Toronto, Ontario, Canada, 2010, AAAI Press 2010 (colume co-editor with F. Lin and U. Sattler)
- Proceedings of the 22nd International Conference on Logic Programming, Springer Verlag, 2006 (volume co-editor with S. Etalle).
- Proceedings of the Sixth Logic Programming and Nonmonotonic Reasoning Conference, Springer Verlag, 2001 (volume co-editor with T. Eiter and W. Faber).
- On-line Proceedings of the 8th International Workshop on Nonmonotonic Reasoning, Breckenridge, Co., April

2000 (with Chitta Baral): <http://xxx.lanl.gov/html/cs.AI/0003073>

- The Logic Programming Paradigm: A 25-Year Perspective, editors: K.R. Apt, V.W. Marek, M. Truszczynski, D.S. Warren, Springer-Verlag, 1999.
- Learning and reasoning with complex representations, editors: G. Antoniou, A. Ghose and M. Truszczynski, Springer-Verlag, 1998.
- Proceedings of the Third Logic Programming and Nonmonotonic Reasoning Conference, Springer Verlag, 1995 (volume co-editor with V. Marek and A. Nerode).

RECENT PUBLICATIONS (all available at www.cs.uky.edu/~mirek/papers.html)

- Reducts of propositional theories, satisfiability relations, and generalizations of semantics of logic programs. M. Truszczynski, Artificial Intelligence 174(16-17): 1285-1306 (2010)
- Logic Programs with Abstract Constraint Atoms: The Role of Computations, L. Liu, E. Pontelli, T.C. Son, M. Truszczynski, Artificial Intelligence 174(3-4): 295-315 (2010)
- Representing Preferences Among Sets. G. Brewka, M. Truszczynski, S. Woltran, Proceedings of AAAI-2010 (2010)
- Simple but Hard Mixed Horn Formulas. G. Namasivayam, M. Truszczynski, Proceedings of SAT 2010: 382-387
- Relativized Hyperequivalence of Logic Programs for Modular Programming, M. Truszczynski, S. Woltran, Theory and Practice of Logic Programming 9(6): 781-819 (2009)
- Hyperequivalence of Logic Programs with Respect to Supported Models, M. Truszczynski, S. Woltran, Annals of Mathematics and AI, 53(1-4): 331-365 (2008)
- The computational complexity of dominance and consistency in CP-nets, J. Goldsmith, J. Lang, M. Truszczynski, N. Wilson, JAIR Research, (33), 403-432, 2008.
- Logic programs with monotone abstract constraint atoms. V. W. Marek, I. Niemela, Miroslaw Truszczynski: Theory and Practice of Logic Programming 8(2): 167-199 (2008)

SYNERGISTIC ACTIVITIES

- Promoting answer-set paradigm as a novel approach to declarative programming, more accessible to non-CS users than earlier approaches (tutorials at AAAI-00, ESSLLI-01, ESSLLI-08, ICLP-02, organization of a Dagstuhl seminars, September 2002, April 2005)
- Tutorial at the 3rd International Compulog/ALP Summer School on Logic Programming and Computational Logic, Las Cruces, NM, 2008
- Leadership in establishing a web-based benchmarking system ASPARAGUS for experimenting with ASP solvers (jointly with collaborators from the University of Potsdam, Germany)
- Involvement with the Paul Laurence Dunbar High School Math Science and Technology Program: math team coach (2001-2005); mentoring seniors and supervising their research projects (five mentorees)

COLLABORATORS, ADVISEES, PHD SUPERVISOR

Collaborators (last 60 months): Gerd Brewka (U. of Leipzig), Luciano Caroprese (U. of Calabria), Marc De-necker (KU Leuven), Michael Dransfield (NSA), Thomas Eiter (Vienna University of Technology) Sandro Etalle (U. of Twente), Wolfgang Faber (U. of Calabria, Italy) Raphael Finkel (U. of Kentucky), Judy Goldsmith (U. of Kentucky), Jérôme Lang (U. Paul Sabatier), Zbigniew Lonc (Warsaw U. of Technology), Victor Marek (U. of Kentucky), Artur Mikitiuk (Tyler State U.), Ilkka Niemelä (Helsinki U. of Technology), Nikolay Pelov, Torsten Schaub (U. of Potsdam), Nic Wilson (U. College, Cork), Stefan Woltran (Technical U, of Vienna)

Advisees: Dee Parkes (PhD 1990, Appalachian State University) Pawel Cholewinski (PhD 1996, Amazon) Artur Mikitiuk (PhD 1996, University of Cardinal Stefan Wyszyński, Warsaw, Poland) Deborah East (PhD 2002, independent consultant), Inna Pivkina (PhD 2003, New Mexico State U.), Lening Liu (PhD 2006, Microsoft), Gayathri Namasivayam (Phd in progress, U. of Kentucky), Yao Han (MS, 2001, Lexmark), Soumya Singhi (MS 2004, Microsoft), Alex Panait (MS 2006, Cypress Semiconductor), Joy Feng (MS 2008, Cypress Semiconductor), Renee Gehlbach, Steven Logsdon, Neil Moore, undergraduate advisees

Ph.D. Theses supervisor: Professor Tadeusz Traczyk