

Henry A. Kautz, Ph.D.

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Summary

Henry Kautz's research encompasses artificial intelligence, pervasive computing, and assistive technology. His contributions include efficient algorithms for logical and probabilistic reasoning, the planning as satisfiability framework, and methods for behavior recognition from sensor data. He is a Fellow of the American Association for the Advancement of Science, a Fellow of the Association for Advancement of Artificial Intelligence, winner of the Computers & Thought Award from the International Joint Conference on Artificial Intelligence, and the author of more than 70 refereed publications. He had 13 years of industrial experience at AT&T Bell Laboratories, where he was head of the AI Principles Research Department. In 2000 he became a faculty member at the University of Washington. From 2006 to 2007 he founded and directed the Intelligent Systems Center at Kodak Research Laboratories. He is currently Chair of the Department of Computer Science at the University of Rochester, where he directs the Laboratory for Assisted Cognition Environments.

Employment

Professor & Chair	University of Rochester, Rochester, NY	2007-present
Director	Kodak Research Laboratories, Rochester, NY	2006-2007
Professor	University of Washington, Seattle, WA	2004-2006
Associate Professor	University of Washington, Seattle, WA	2000-2004
Technology Leader	AT&T Laboratories, Florham Park, NJ	1997-2000
Department Head	AT&T Bell Laboratories, Murray Hill, NJ	1994-1997
Scientist	AT&T Bell Laboratories, Murray Hill, NJ	1987-1994
Systems Analyst	Nanodata Corporation, Buffalo, NY	1978-1979

Education

University of Rochester	PH.D., Computer Science	1987
University of Toronto	MS, Computer Science	1982
The Johns Hopkins University	MA, Writing Seminars	1980
Cornell University	AB, Mathematics	1978

Honors

Fellow	American Association for the Advancement of Science	2007
Fellow	American Association for Artificial Intelligence	1997
Executive Council	American Association for Artificial Intelligence	1998–2001
Computers & Thought Award	International Joint Conference on Artificial Intelligence	1989
1 st Place	ICAPS Planning Competition (Optimal Planning)	2006
1 st Place	ICAPS Planning Competition (Optimal Planning)	2004
Best Paper	IEEE International Symposium on Wearable Computers	2005
Best Paper	National Conference on Artificial Intelligence	2004
Best Paper	National Conference on Artificial Intelligence	1996
Notable Paper	National Conference on Artificial Intelligence	1993
Best Paper	International Conference on Knowledge Representation & Reasoning	1989
Best Paper	Canadian Society for Computational Studies of Intelligence	1988
Fellowship	National Science Foundation	1982–1985

PhDs Supervised

Ashish Sabharwal	Propositional Proof Complexity and its Applications to Satisfiability Algorithms. Current position: Postdoctoral scholar, Cornell University, Ithaca, NY.	2001-2005
Lin Liao	Location-Based Activity Recognition. Current position: Research Scientist, Google Labs, Seattle, WA.	2002-2006
Don Patterson	Learning Predictive Models of Large and Small Scale Human Activity. Current position: Asst. Prof., University of California at Irvine.	2001-2005
Yongshao Ruan	Efficient Inference: A Machine Learning Approach. Current position: SourceLabs, Seattle, WA.	2000-2004

Grants Received

DARPA	Cognitive Assistive Technology for Individuals with TBI. SBIR with Sendero Inc. and University of Washington.	\$100,000	2008
DARPA	Increasing Independence for Individuals with Brain Injury with Integrated Cueing, Monitoring and Planning. SBIR with Attention Control Systems.	\$98,996	2008
NYSTAR	Probabilistic Models of Human Activity and their Applications to Assistive Technologies	\$336,738	2006-2009
DARPA	Integrated Learning and Reasoning Activity	\$149,878	2006-2007
NSF	Building High-Level Models of Human Behavior from Low-Level Sensor Data	\$ 220,000	2005-2009
DARPA	CALO: Cognitive Agent that Learns and Observes. Joint with P. Domingos and D. Fox	\$553,000	2005-2006
DARPA	ASSIST: Situation Assessment & Activity Recognition. Joint with D. Fox, G. Borriello, J. Bilmes, and D. Weld	\$649,000	2005-2006
DARPA	CALO: Situation Awareness. Joint with D. Weld & D. Fox.	\$400,000	2004-2005
DARPA	Usability Study of a Personal Guidance System for the Cognitively Disabled	\$50,000	2005-2006
NIDRR	Assisted Cognition in Community, Employment, and Support Settings (ACCESS). Joint with K. Johnson, G. Borriello, P. Brown , M. Harniss, B. Dudgeon.	\$1,495,000	2004-2007
NSF	ITR: Creating Dynamic Social Network Models from Sensor Data. Joint with D. Fox, J. Kitts, T. Choudhury, & J. Rehg.	\$795,400	2002-2005
NSF	ITR: Inference in AI, Verification, and Theory: A Unified Approach. Joint with P. Beam	\$490,000	2001-2004

NSF	Principles of Efficient Inference	\$420,000	2001-2004
Intel	Assisted Cognition	\$270,000	2002-2005
ONR	Beowulf Cluster Supercomputing for AI, Data Mining, and Database Research. Joint with D.Weld,D.Fox,P. Domingos,O. Etzioni.	\$134,700	2002

Publications

2008

- Privacy-preserving Recognition of Activities in Daily Living from Multi-view Silhouettes and RFID-based Training
Sangho Park and Henry Kautz. *AAAI Fall 2008 Symposium on AI in Eldercare: New Solutions to Old Problems*, Washington, DC, November 7 - 9, 2008.
- Integrating Sensing and Cueing for More Effective Activity Reminders
Joseph Modayil, Rich Levinson, Craig Harman, David Halper, and Henry Kautz. *AAAI Fall 2008 Symposium on AI in Eldercare: New Solutions to Old Problems*, Washington, DC, November 7 - 9, 2008.
- Mining GPS Traces and Visual Words for Event Classification
Junsong Yuan, Jiebo Luo, Henry Kautz, and Ying Wu, *ACM Multimedia Information Retrieval (MIR) Conference*, Vancouver, BC, October 2008. (Invited Oral Presentation)
- Improving the Recognition of Interleaved Activities
Joseph Modayil, Tongxin Bai, and Henry Kautz. *Tenth International Conference on Ubiquitous Computing (UBICOMP08)*, Seoul, South Korea, September 21 - 24, 2008.
- Hierarchical Recognition of Activities of Daily Living using Multi-Scale, Multi-Perspective Vision and RFID
Sangho Park and Henry Kautz. *4th IET International Conference on Intelligent Environments*, Seattle, WA, July 2008.
- Discovery of Social Relationships in Consumer Photo Collections using Markov Logic
Parag Singla, Henry Kautz, Jiebo Luo, Andrew Gallagher. *3rd International Workshop on Semantic Learning and Applications in Multimedia*, Anchorage, Alaska, 2008.
- Satisfiability Solvers
Carla P. Gomes, Henry Kautz, Ashish Sabharwal, Bart Selman. *Handbook of Knowledge Representation, in the series Foundations of Artificial Intelligence, vol. 3*. Editors: Frank van Harmelen, Vladimir Lifschitz, and Bruce Porter. Elsevier, pp 89-134, 2008.
- Incomplete Algorithms (for Satisfiability)
Henry Kautz, Ashish Sabharwal, Bart Selman. *Handbook of Satisfiability*, IOS Press. Editors: Armin Biere, Marijn Heule, Hans van Maaren, and Toby Walsh. Expected publication 2008.

Technology and Aging: Selected Papers from the 2007 International Conference on Technology and Aging

A. Mihailidis, J. Boger, H. Kautz, and L. Normie, Eds., IOS Press, Amsterdam, 2008.

2007

Training Conditional Random Fields using Virtual Evidence Boosting

Lin Liao, Tanzeem Choudhury, Dieter Fox, and Henry Kautz. *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, 2007.

SAT Encodings of State-Space Reachability Problems in Numeric Domains

J. Hoffmann, H. Kautz, C. Gomes, B. Selman. *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, 2007.

A Dynamic Approach to MPE and Weighted MAX-SAT

Tian Sang, Paul Beame, and Henry Kautz. *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, 2007.

A Privacy-Sensitive Approach to Modeling Multi-Person Conversations

D. Wyatt, T. Choudhury, J. Bilmes, and H. Kautz. *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, 2007.

Extracting Places and Activities from GPS Traces Using Hierarchical Conditional Random Fields

L. Liao, D. Fox, and H. Kautz. *International Journal of Robotics Research*, 2007.

Learning Large Scale Common Sense Models of Everyday Life.

William Pentney, Matthai Philipose, Jeff Bilmes and Henry Kautz. *Proceedings of the 27th National Conference on Artificial Intelligence (AAAI-07)*, 2007.

Capturing Spontaneous Conversation and Social Dynamics: A Privacy Sensitive Data Collection Effort

D. Wyatt, T. Choudhury, and H. Kautz. *Proceedings of the 2007 International Conference on Acoustics, Speech, and Signal Processing (ICASSP-07)*, Honolulu, Hawaii, 2007.

2006

Indoor Wayfinding: Developing a Functional Interface for Individuals with Cognitive Impairments

Alan L. Liu, Harlan Hile, Henry Kautz, Gaetano Borriello, Pat A. Brown, Mark Harniss, Kurt Johnson. *Proceedings of the 8th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2006)*, Portland, OR, 2006. Extended version invited to appear in a special issue of the journal *Disability and Rehabilitation: Assistive Technologies*.

Deconstructing Planning as Satisfiability

Henry Kautz. *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI-06)*, Boston, MA, 2006.

Sensor-Based Understanding of Daily Life via Large-Scale Use of Common Sense

William Pentney, Henry Kautz, Matthai Philipose, Ana-Maria Popescu, and Shiaokai Wang. *Proceedings of the 26th National Conference on Artificial Intelligence (AAAI-06)*, Boston, MA, 2006.

2005

Report on the DARPA Workshop on Advancing Assisted Cognition Technology for Persons with Traumatic Brain Injury
Henry Kautz. November 7-8, 2005, Bethesda, MD.

Location-Based Activity Recognition using Relational Markov Networks
Lin Liao, Dieter Fox and Henry Kautz. *Proceedings of the Nineteenth International Joint Conference on Artificial Intelligence*, Edinburgh, Scotland, 2005.

Location-Based Activity Recognition
L. Liao, D. Fox, and H. Kautz. *Proceedings of the Nineteenth Annual Conference on Neural Information Processing Systems (NIPS-2005)*, Whistler, BC, 2005.

Extending Continuous Time Bayesian Networks
Karthik Gopalratnam and Henry Kautz and Daniel S. Weld. *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI-05)*, Pittsburgh, PA, 2005.

Heuristics for Fast Exact Model Counting
Tian Sang, Paul Beame, and Henry Kautz. *Eighth International Conference on Theory and Applications of Satisfiability Testing*, Edinburgh, Scotland, 2005.

Solving Bayesian Networks by Weighted Model Counting
Tian Sang, Paul Beame, and Henry Kautz. *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI-05)*, Pittsburgh, PA, 2005.

Constraints and AI Planning
A. Nareyek, E. Freuder, R. Fourer, E. Giunchiglia, R. Goldman, H. Kautz, J. Rintanen, & A. Tate. *IEEE Intelligent Systems*, 20(2) 2005, pgs. 62-72.

Fine-Grained Activity Recognition by Aggregating Abstract Object Usage
Donald Patterson, Dieter Fox, Henry Kautz, Matthai Philipose. *Proceedings of the IEEE International Symposium on Wearable Computers*, Osaka, Japan, 2005. **Best Paper Award.**

2004

Towards Understanding and Harnessing the Potential of Clause Learning
Beame, P., Kautz, H. and Sabharwal, A. *Journal of Artificial Intelligence Research (JAIR)*, vol. 22, pgs. 319-351, 2004.

Inferring ADLs from Interactions with Objects
Matthai Philipose, Kenneth P. Fishkin, Mike Perkowitz, Donald J. Patterson¹, Dirk Hahnel, Dieter Fox, and Henry Kautz. *IEEE Pervasive Computing*, volume 3, number 4, pages 50-56, 2004.

Opportunity Knocks: a System to Provide Cognitive Assistance with Transportation Services
Donald J. Patterson, Lin Liao, Krzysztof Gajos, Michael Collier, Nik Livic, Katherine Olson, Shiaokai Wang, Dieter Fox, and Henry Kautz. *Sixth International Conference on Ubiquitous Computing (UBICOMP 2004)*, Nottingham, England, 2004.

Walksat in the 2004 SAT Competition

Henry Kautz, Bart Selman, & David McAllester, *International Conference on Theory and Applications of Satisfiability Testing*, Vancouver, BC, 2004.

Learning and Inferring Transportation Routines

Lin Liao, Dieter Fox, and Henry Kautz. **Best Paper Award**, *Nineteenth National Conference on Artificial Intelligence (AAAI-04)*, San Jose, CA, 2004.

Behavior Recognition in Assisted Cognition

Lin Liao, Donald J. Patterson, Dieter Fox, and Henry Kautz. Invited paper, *AAAI 2004 Workshop on Supervisory Control of Learning and Adaptive Systems*, San Jose, CA, 2004.

Contextual Computer Support for Human Activity

Donald J. Patterson, Ken Fishkin, Dieter Fox, Henry Kautz, Mike Perkowitz, and Matthai Philipose. *AAAI 2004 Spring Symposium on Interaction Between Humans and Autonomous Systems over Extended Operation*, Stanford, CA, 2004.

Combining Component Caching and Clause Learning for Effective Model Counting

Tian Sang, Fahiem Bacchus, Paul Beame, Henry Kautz, and Toniann Pitassi. *Seventh International Conference on Theory and Applications of Satisfiability Testing*, Vancouver, BC, 2004.

The Backdoor Key: A Path to Understanding Problem Hardness

Yongshao Ruan, Henry Kautz, and Eric Horvitz, *Proceedings of the 19th National Conference on Artificial Intelligence (AAAI-04)*, San Jose, CA, 2004.

2003

Ten Challenges Redux: Recent Progress in Propositional Reasoning and Search

Henry Kautz & Bart Selman. Invited paper, *Ninth International Conference on Principles and Practice of Constraint Programming (CP 2003)*, Cork, Ireland, 2003.

Inferring High Level Behavior from Low Level Sensors.

Don Patterson, Lin Liao, Dieter Fox, and Henry Kautz. *Fifth Annual Conference on Ubiquitous Computing (UBICOMP 2003)*, Seattle, WA, 2003.

Expressive, Tractable and Scalable Techniques for Modeling Activities of Daily Living.

Don Patterson, Dieter Fox, Henry Kautz, and Matthai Philipose. *UbiHealth 2003: The 2nd International Workshop on Ubiquitous Computing for Pervasive Healthcare Applications*, Seattle, WA, Oct 12, 2003.

Voronoi Tracking: Location Estimation using Sparse and Noisy Data.

Lin Liao, Dieter Fox, Jeffrey Hightower, Henry Kautz and Dirk Schulz. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2003)*, Las Vegas, NV, 2003.

Understanding the Power of Clause Learning.

Paul Beame, Henry Kautz, and Ashish Sabharwal. *Proceedings of the Eighteenth International Joint Conference on Artificial Intelligence (IJCAI-2003)*, Acapulco, Mexico, 2003.

Using Problem Structure for Efficient Clause Learning.

Paul Beame, Henry Kautz, and Ashish Sabharwal. *Sixth International Conference on Theory and Applications of Satisfiability Testing (SAT 2003)*, Springer Verlag Lecture Notes in Artificial Intelligence (LNAI), 2003.

2002

The Activity Compass

Don Patterson, Oren Etzioni, and Henry Kautz. *First International Workshop on Ubiquitous Computing for Cognitive Aids*, Gothenberg, Sweden, 2002.

Towards a Theory of Natural Language Interfaces to Databases.

Ana-Marie Popescu, Oren Etzioni, and Henry Kautz. *Proceedings of the International Conference on Intelligent User Interfaces (IUI-2003)*, Miami, Florida, 2003.

Restart Policies with Dependence among Runs: A Dynamic Programming Approach.

Yongshao Ruan, Eric Horvitz, and Henry Kautz. *Proceedings of the Eighth International Conference on Principles and Practice of Constraint Programming (CP-2002)*, Springer-Verlag, 2002.

Dynamic Restart Policies.

Henry Kautz, Eric Horvitz, Yongshao Ruan, Carla Gomes, and Bart Selman. *Proceedings the 18th National Conference on Artificial Intelligence (AAAI-2002)*, Edmonton, Alberta, 2002.

An Overview of the Assisted Cognition Project. .

Henry Kautz, Larry Arnstein, Gaetano Borriello, Oren Etzioni, and Dieter Fox. *AAAI-2002 Workshop on Automation as Caregiver: The Role of Intelligent Technology in Elder Care*, Edmonton, Alberta, 2002.

2001

A Bayesian Approach to Tackling Hard Computational Problems. .

Eric Horvitz, Yongshao Ruan, Carla Gomes, Henry Kautz, Bart Selman, Max Chickering. *Proceedings the 17th Conference on Uncertainty in Artificial Intelligence (UAI-2001)*, Seattle, WA, 2001.

Balance and Filtering in Structured Satisfiable Problems .

Henry Kautz, Yongshao Ruan, Dimitiri Achlioptas, Carla Gomes, Bart Selman, and Mark Stickel. *Proceedings of the 17th International Joint Conference on Artificial Intelligence (IJCAI-2001)*, Seattle, WA, 2001.

Auto-Walksat: a Self-Tuning Implementation of Walksat.

Donald J. Patterson and Henry Kautz. *Electronic Notes in Discrete Mathematics (ENDM)*, 9, 2001, Elsevier. Presented at the *LICS Workshop on Theory and Applications of Satisfiability Testing*, Boston University, MA, 2001.

2000

Generating Satisfiable Problem Instances

Dimitris Achlioptas, Carla Gomes, Henry Kautz, and Bart Selman. *Proc. AAAI-2000*, Austin, TX.

Hardening soft information sources

David McAllester, William Cohen, and Henry Kautz. *Proc. KDD-2000*, Boston, MA.

Learning Declarative Control Rules for Constraint-Based Planning

Yi-Cheng Huang, Bart Selman, and Henry Kautz. *Proc. ICML-2000*, Stanford, CA.

Heavy-tailed phenomena in satisfiability and constraint satisfaction problems

Carla P. Gomes, Bart Selman, Nuno Crator, and Henry Kautz. *J. of Automated Reasoning, Vol. 24(1/2)*, 1999, pp. 67-100,
Unifying SAT-based and Graph-based Planning
Henry Kautz and Bart Selman. *Proc. IJCAI-99*, Stockholm, Sweden, 1999.
Integer Optimization Models of AI Planning Problems
Henry Kautz and Joachim P. Walser. *Knowledge Engineering Review*, vol. 15, no. 1, 2000, pp. 101-117.

1999

State-space Planning by Integer Optimization
Henry Kautz and Joachim P. Walser. *Proc. AAAI-99*, Orlando, FL, 1999.
Control Knowledge in Planning: Benefits and Tradeoffs
Yi-Chen Huang, Bart Selman, and Henry Kautz. *Proc. AAAI-99*, Orlando, FL, 1999.
Temporal Reasoning.
In *The MIT Encyclopedia of Cognitive Science*, MIT Press, Cambridge, 1999.
BLACKBOX: A New Approach to the Application of Theorem Proving to Problem Solving
Henry Kautz and Bart Selman. *Working notes of the Workshop on Planning as Combinatorial Search*, held in conjunction with AIPS-98, Pittsburgh, PA, 1998.

1998

Creating Models of Real-World Communities with ReferralWeb
Henry Kautz and Bart Selman. *Working notes of the Workshop on Recommender Systems*, held in conjunction with AAAI-98, Madison, WI, 1998.
Boosting Combinatorial Search through Randomization
C.P. Gomes, B. Selman, and H. Kautz. *Proc. AAAI-98*, Madison, WI, 1998.
The Role of Domain-Specific Knowledge in the Planning as Satisfiability
Henry Kautz and Bart Selman. *Proc. AIPS-98*, Pittsburgh, PA, 1998.
Temporal Reasoning
Henry Kautz. Appears in the *MIT Encyclopedia of Cognitive Science*, 1998.

1997

A General Stochastic Approach to Solving Problems with Hard and Soft Constraints
Henry Kautz, Bart Selman, and Yueyen Jiang. In *The Satisfiability Problem: Theory and Applications*, Dingzhu Gu, Jun Du, and Panos Pardalos (Eds.), DIMACS Series in Discrete Mathematics and Theoretical Computer Science, vol. 35, American Mathematical Society, 1997, pp. 573-586.
Exploiting Variable Dependency in Local Search
Henry Kautz, David McAllester, and Bart Selman. *DRAFT. Abstracts of the Poster Sessions of IJCAI-97*, Nagoya, Japan, 1997.
The Hidden Web
Henry Kautz, Bart Selman, and Mehul Shah. *AI Magazine*, vol. 18, no. 2, Summer 1997, pp. 27 - 36.
Ten Challenges in Propositional Reasoning and Search

Bart Selman, Henry Kautz, and David McAllester. *Proc. IJCAI-97*, Nagoya, Japan, 1997.

Evidence for Invariants in Local Search

David McAllester, Bart Selman, and Henry Kautz. *Proc. AAAI-97*, Providence, RI, 1997.

ReferralWeb: Combining Social Networks and Collaborative Filtering

Henry Kautz, Bart Selman, and Mehul Shah. *Comm. ACM*, vol. 30 no. 3, March 1997.

1996

Agent Amplified Communication

Henry Kautz, Bart Selman, and Al Milewski. *Proc. AAAI-96*.

Encoding Plans in Propositional Logic

Henry Kautz, David McAllester, and Bart Selman, *Proc. KR-96*.

Pushing the Envelope: Planning, Propositional Logic, and Stochastic Search

Henry Kautz and Bart Selman, *Proc. AAAI-96*. **Best Paper Award.**

Agent Amplified Communication

Henry Kautz and Bart Selman, *Proc. AAAI-96*, 1996.

Knowledge Compilation and Theory Approximation

Bart Selman and Henry Kautz. *Journal of the ACM*, 43(2):193-224, March 1996.

Local Search Strategies for Satisfiability Testing.

Bart Selman, Henry Kautz, and Bram Cohen. In *Cliques, Coloring, and Satisfiability: Second DIMACS Implementation Challenge, October 11-13, 1993*. David S. Johnson and Michael A. Trick, ed. DIMACS Series in Discrete Mathematics and Theoretical Computer Science, vol. 26, AMS, 1996.

1995

The Comparative Linguistics of Knowledge Representation

Goran Gogic, Henry Kautz, Christos Papadimitriou, and Bart Selman, *Proc. IJCAI-95*.

Solving Problems with Hard and Soft Constraints Using A Stochastic Algorithm for MAX-SAT

Yueyun Jiang, Henry Kautz, and Bart Selman, *First International Joint Workshop on Artificial Intelligence and Operations Research*, 1995.

Horn Approximations of Empirical Data

Henry Kautz, Michael Kearns, and Bart Selman. *Artificial Intelligence*, 74/1, March 1995, pp. 129-145.

1994

Noise Strategies for Improving Local Search

Bart Selman, Henry Kautz, and Bram Cohen. *Proc. AAAI-94*.

An Experiment in the Design of Software Agents

Henry Kautz, Bart Selman, Michael Coen, Steven Ketchpel, and Chris Ramming, *Proc. AAAI-94*.

An Empirical Evaluation of Knowledge Compilation

Henry Kautz and Bart Selman, *Proc. AAAI-94*.

1993

Domain-Independent Extensions to GSAT: Solving Large Structured Satisfiability Problems

Bart Selman and Henry Kautz, *Proc. IJCAI-93*.

Reasoning With Characteristic Models

Henry Kautz, Michael Kearns, Bart Selman, *Proc. AAAI-93*.

An Empirical Study of Greedy Local Search for Satisfiability Testing

Bart Selman and Henry Kautz, *Proc. AAAI-93*.

1992

Planning as Satisfiability

Henry Kautz and Bart Selman, *Proc. ECAI-92*.

Forming Concepts for Fast Inference

Henry Kautz and Bart Selman, *Proc. AAAI-92*.

1991

A General Framework for Knowledge Compilation

Henry Kautz and Bart Selman, *Proc. WOCFAI-91*.

Knowledge Compilation Using Horn Approximations

Bart Selman and Henry Kautz, *Proc. AAAI-91*.

Integrating Metric and Qualitative Temporal Reasoning

Henry Kautz and Peter Ladin, *Proc. AAAI-91*.

A Formal Theory of Plan Recognition and its Implementation

In *Reasoning About Plans*, by J.F. Allen, H.A. Kautz, R.N. Pelavin, and J.D. Tenenbergs, Morgan Kaufmann Publishers, 1991, pp. 69-126.

Hard Problems for Simple Default Logics

Henry Kautz and Bart Selman. *Artificial Intelligence* 49 (1991) 243--279. Earlier version received **Best Paper Award**, *Proceedings of the 1st International Conference on Principles of Knowledge Representation and Reasoning*, Toronto, Canada, 1989.

1990

The complexity of model-preference default theories

B. Selman and H. Kautz. *Artificial Intelligence* 45, 1990, pp. 287-322. Earlier version received **Best Paper Award**, *Proceedings of the National Conference of the Canadian Society for Computational Studies of Intelligence (CSCSI)*, 1988.

1986

The logic of persistence.

H. A. Kautz. *Proc. AAAI-1986*.