Name: **Bart Selman**
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University Activities

- Director of Graduate Studies ('09)
- Director of the Intelligent Information Systems Institute (IISI)
- Member, Executive Board, Institute for Computational Sustainability
- Member, Ph.D. Admissions committee ('08-'09)
- Chair, Ph.D. Admissions committee ('07-'08)
- Member, Cornell University Lectures Committee ('06-'09)

Professional Activities

- Chair Elect, Section Section on Information, Computing and Communication, American Assoc. for the Advancement of Science(AAAS, '09-'11).
- Member, ACM Dissertation Awards Committee (2006-2010). Committee Chair ('09-'10).
  co-Chair, AAAI Presidential Panel concerning Future Directions in AI: Societial Impact and Responsibilities
- Chair, Learning and Intelligent Optimization (LION 3), Trento,Italy, 2009.
- Program committees AAAI-07, SAT-08, AAAI-08, UAI-09, and IJCAI-09.

Publications

- Integrating Systematic and Local Search Paradigms: A New Strategy for MaxSAT. Lukas Kroc, Ashish Sabharwal, Carla P. Gomes, and Bart Selman. 21st Int. Joint Conf. on Artificial Intelligence (IJCAI-09), Pasadena, CA, 2009.
- Relaxed DPLL Search for MaxSAT.Lukas Kroc, Ashish Sabharwal, and Bart Selman
  12th Int. Conf. on Theory and Appl. of Satisfiability Testing (SAT-09), Swansea, Wales, U.K., 2009.
- Incomplete Algorithms for Satisfiability. Henry Kautz, Ashish Sabharwal, and Bart Selman Handbook of Satisfiability (inv. chapter), IOS Press, 2009.
- Model Counting.Carla Gomes, Ashish Sabharwal, and Bart Selman. Handbook of Satisfiability (inv. chapter), IOS Press, 2009.
- Message-Passing and Local Heuristics as Decimation Strategies for Satisfiability.Lukas Kroc, Ashish Sabharwal, and Bart Selman 24th Annual ACM Symposium on Applied Computing (SAC-09), 2009.
- Computational science: A hard statistical view.(Invited News and Views article.)
  Bart Selman, Nature 451, 639-640, 2008.

- Counting Solution Clusters in Graph Coloring Problems Using Belief Propagation.Lukas Kroc, Ashish Sabharwal, and Bart Selman 22nd Ann. Conf. on Neural Info. Proc. Syst. (NIPS-08), Vancouver, BC, Canada, 2008.
- Leveraging Belief Propagation, Backtrack Search, and Statistics for Model Counting. Lukas Kroc, Ashish Sabharwal, and Bart Selman 5th Int. Conf. on the Integration of AI and OR Techniques (CPAIOR-08), Paris, France, 2008.
- Satisfiability Solvers. Carla Gomes, Henry Kautz, Ashish Sabharwal, and Bart Selman.
- Handbook of Knowledge Representation (inv. chapter), Elsevier, 2008.
- From Sampling to Model Counting. Carla Gomes, Joerg Hoffmann, Ashish Sabharwal, and Bart Selman. 20th Int. Joint Conference on Artificial Intelligence (IJCAI-07), Hyderabad, India, 2007.
- Survey Propagation Revisited. Lukas Kroc, Ashish Sabharwal, and Bart Selman. 23rd Conf. on Uncertainty in Artificial Intelligence (UAI-07). Vancouver, BC, Canada, 2007.
- Counting CSP Solutions Using Generalized XOR Constraints. Carla Gomes, Willem-Jan van Hoeve, Ashish Sabharwal, and Bart Selman. 22nd Conf. on Artificial Intelligence (AAAI-07), Vancouver, BC, Canada, 2007.
- Sampling and Soundness: Can We Have Both? Carla P. Gomes, Joerg Hoffmann, Ashish Sabharwal, Bart Selman. 6th International Semantic Web Conference (ISWC-07), Busan, Korea, 2007.
- Short XORs for Model Counting: From Theory to Practice. Carla P. Gomes, Joerg Hoffmann, Ashish Sabharwal, and Bart Selman. 10th Int. Conf. on Theory and Applications of Satisfiability Testing (SAT-07). Lisbon, Portugal, 2007.

Lectures

- "The Synthesis of Probabilistic and Logical Inference Methods", Colloquium, Microsoft Research New England, Cambridge, MA, April 2008.
- "Satisfied by Message Passing: Probabilistic Techniques for Combinatorial Problems," (inv. tutorial with Lukas Kroc and Ashish Sabharwal), LION-3, Trento, Italy, Jan., 2008
- "Planning as Satisfiability: A Survey", NSF Workshop on Symbolic Computation for Constraint Satisfaction Problems, Washington, DC, Nov. 2008.
- "The Synthesis of Probabilistic and Logical Inference Methods", Colloquium, Helsinki University of Technology (TKK), Helsinki, Finland, Nov. 2008.
- "The Synthesis of Probabilistic and Logical Inference Methods", Colloquium, Washington University, St. Louis, Nov. 2008.
- "The Synthesis of Probabilistic and Logical Inference Methods", Colloquium, Univerity of Texas, Austin, TX, Sept. 2008.
- "Satisfied by Message Passing: Probabilistic Techniques for Combinatorial", (inv. tutorial, with Lukas Kroc and Ashish Sabharwal) 23rd Conf. on Artificial Intelligence (AAAI-08), Tutorial Forum, Chicago, IL, July 2008.
- "Combinatorial Problems (series of three lectures; Finding Solutions, Counting and Sampling Solutions, and The Next Level of Complexity)", 2nd Asian-Pacific School on Statistical Physics and

Interdisciplinary Applications, Collective Dynamics and Information Systems Program (KITPC-08), Kavli Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing, China, March 2008

- "Beyond Traditional SAT Reasoning: QBF, Model Counting, and Solution Sampling", (inv. tutorial with Ashish Sabharwal) 22nd Conference on Artificial Intelligence (AAAI-07), Tutorial Forum, Vancouver, BC, Canada, July 2007
- "Quantified Boolean Formula (QBF) Reasoning," (with Carla Gomes and Ashish Sabharwal) Tutorial prepared for DARPA, Washington, DC, Feb. 2007
- "The Challenge and Promise of Automated Reasoning," Colloquium, Dept. of Comp. Sci., University of Rochester, Rochster, NY, Nov. 2007.
- "The Challenge and Promise of Automated Reasoning," Distinguished Lecturer Seminar Series, Dept. Comp. Sci., The University of Illinois at Chicago, Chicago, IL, Oct. 2007.

Honors

- Elected to Chair, Section on Information, Computing and Communication, American Association for the Advancement of Science (AAAS, Chair Elect '09, Chair '10).
- Outstanding Paper Award, 21st Natl. Conf. on Artificial Intelligence (AAAI-06), 2006.
- Distinguished Paper Award at the 10th International Conference on the Theory and Practice of Constraint Programming (CP-2004), 2004.Fellow of the American Association for the Advancement of Science (2003).
- Fellow of the American Association for Artificial Intelligence (2001). Alfred P. Sloan Research Fellow (1999-2000).
- NSF Faculty Early Career Development Award (1998-2002).Stephen '57 and Marilyn Miles, Excellence in Teaching Award, College of Engineering, Cornell University (2002).
- Selected most influential Cornell Professor by Merrill Presidential Scholar (Cornell Outstanding Educator Award, 2001).
- Elected to the Executive Council of the American Association for Artificial Intelligence, the policy making body for AAAI (1999-2002).
- Best Paper Award, 13th Natl. Conf. on Artificial Intelligence (AAAI-96), 1996.
- Best Paper Award, 10th Natl. Conf. on Artificial Intelligence (AAAI-92), 1992.
- Best Paper Award, 1st Intl. Conf. on Knowl. Repr. and Reasoning (KR-89), 1989.
- Best Paper Award, 7th Biennial Conf. of the Canadian Soc. for the Comput. Studies of Intelligence (CSCSI-88), 1988.