

Name: **Joseph Halpern**

Title: Professor

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University Activities

- Chair, CS department recruiting committee
- Member, Statistics recruiting committee

Professional Activities

- Program committee member for Twelfth Conference on Theoretical Aspects of Rationality and Knowledge (2009)
- Twenty-First International Joint Conference on AI (2009)
- Twenty-Fifth Annual Conference on Uncertainty in Artificial Intelligence (2009) (area chair)
- General chair, Twelfth Conference on Theoretical Aspects of Rationality and Knowledge (2009)
- Invited panelist, Workshop on Decision Theory and Its Discontents, Chicago (April 2009)
- Editorial Board member, Games and Economic Behavior
- Editorial Board member, Journal of Logic and Computation
- Administrator, Computing Research Repository (CoRR)

Publications

- J. Y. Halpern, Computer science and game theory: A brief survey, in *The New Palgrave Dictionary of Economics* (S. N. Durlauf and L.E. Blume, eds.), Palgrave MacMillan, 2008.
- J. Y. Halpern, Joseph Y. Halpern, in *Epistemology: 5 Questions* (ed. V. F Hendricks and D. Pritchard), Automatic Press/VIP, 2008, pp. 155--166.
- J. Y. Halpern and V. Weissman, Using first-order logic to reason about policies, *ACM Transactions on Information and System Security* 11:4, 2008.
- J. Y. Halpern and K. R. O'Neill, Secrecy in multi-agent systems, *ACM Transactions on Information and System Security* 12:1, 2008.
- A nonstandard characterization of sequential equilibrium, perfect equilibrium, and proper equilibrium, *International Journal of Game Theory* 38:1, 2009, pp. 37--39.
- J. Y. Halpern, Intransitivity and vagueness, *Review of Symbolic Logic*, 1:4, 2009, pp. 530--547.
- J. Y. Halpern, From qualitative to quantitative proofs of security properties using first-order conditional logic, *AAAI-08 (Proceedings of the Twenty-Third AAAI Conference on Artificial Intelligence)*, 2008, pp. 454--459.
- I. Abraham, D. Dolev, and J. Y. Halpern, An almost-surely terminating polynomial protocol for asynchronous Byzantine agreement with optimal resilience, *Proceedings of the Twenty-Seventh Annual ACM Symposium on Principles of Distributed Computing*, 2008, (with I. Abraham and D. Dolev), pp. 405--414.

- I. A. Kash, E. J. Friedman, and J. Y. Halpern, The Lotus-eater attack, Proceedings of the Twenty-Seventh Annual ACM Symposium on Principles of Distributed Computing, 2008, p. 455.
- P. Grunwald and J. Y. Halpern, A game-theoretic analysis of updating sets of probabilities, Proceedings of the Twenty-Fourth Conference on Uncertainty in AI, 2008, pp. 240--247.
- J. Y. Halpern, Defaults and normality in causal structures, Proceedings of the Eleventh International Conference on Principles of Knowledge Representation and Reasoning (KR 2008), 2008, pp. 198-208.
- D. J. Martin and J. Y. Halpern, Shared winner determination in sponsored search auctions, Proc.~25th International Conf.~on Data Engineering, 2009, pp. 270--280.
- I. A. Kash, E. J. Friedman, and J. Y. Halpern, Learning in large games, Proceedings of the Eighth International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2009.
- I. A. Kash, E. J. Friedman, and J. Y. Halpern, Manipulating scrip systems: sybils and collusion, Proceedings of the First Conference on Auctions, Market Mechanisms, and Multiagent Systems (AMMA), 2009.
- J. Y. Halpern, Beyond Nash equilibrium: solution concepts for the 21st century, Proceedings of Twenty-Seventh Annual ACM Symposium on Principles of Distributed Computing, 2008, pp. 1--10. (Reprinted in Proceedings of the Eleventh International Conference on Principles of Knowledge Representation and Reasoning (KR 2008), 2008, pp. 6--14.)
- D. J. Martin, J. Y. Halpern, and J. Gehrke, System and Method for Scalable Sponsored Auctions, patent application filed August, 2008.

Lectures

- Beyond Nash equilibrium: solution concepts for the 21st century, Twenty-Seventh Annual ACM Symposium on Principles of Distributed Computing, Toronto (August, 2008) (invited talk).
- Eleventh International Conference on Principles of Knowledge Representation and Reasoning (KR 2008), Sydney, Australia (September, 2008) (invited talk).
- GAMES Summer School, Bertinoro, Italy (June, 2009) (invited talk)
- Causality, responsibility, and blame: a structural-model approach. Workshop on Theory and Practice of Provenance, San Francisco (February, 2009) (invited talk)
- Defaults and normality in causal structures, Eleventh International Conference on Principles of Knowledge Representation and Reasoning (KR 2008), Sydney, Australia (September, 2008)
- MICRAC Workshop on Causality in AI and Cognitive Psychology Toulouse, France (June 2009), (invited talk)
- From qualitative to quantitative proofs of security properties using first-order conditional logic, AAI-08 (Proceedings of the Twenty-Third AAI Conference on Artificial Intelligence), Chicago (July 2008)
- An almost-surely terminating polynomial protocol for asynchronous Byzantine agreement with optimal resilience, Twenty-Seventh Annual ACM Symposium on Principles of Distributed Computing, Toronto (July 2008)
- Constructive Decision Theory University of Queensland, Australia, Economics Dept. Colloquium

(Sept., 2008)

New Honors

- 2009 ACM/AAAI Newell Award
- Invited to join the Center for Analytic Economics, Cornell