

David B. Shmoys

University Activities

- Member, Ad Hoc Committee of the Dean of the Faculty on Course and Exam Scheduling

Professional Activities

- Editorial Board, *SIAM Journal on Discrete Mathematics*
- Member, Executive Council, Prize Coordinator, ACM SIGACT
- Council Member for Publications, Mathematical Programming Society
- Member, ACM Lawler Prize Committee

Publications

- "Algorithms for the universal and *a priori* TSP", *Operations Research Letters*, 36(1), 1-3, January 2008. (With F. Schalekamp.)
- "Provably near-optimal sampling-based algorithms for stochastic inventory control models", *Mathematics of Operations Research*, 32(4), 821-839, November 2007. (With R. Levi and R. Roundy.)
- "A constant approximation algorithm for the *a priori* traveling salesman problem", *Proceedings of the 13th MPS Conference on Integer Programming and Combinatorial Optimization*, 331-343, 2008. (With K. Talwar.)
- "Primal-dual schema for capacitated covering problems", *Proceedings of the 13th MPS Conference on Integer Programming and Combinatorial Optimization*, 288-302, 2008. (With T. Carnes.)
- "A constant approximation algorithm for the one-warehouse multiretailer problem", *Management Science*, 54(4), 763-776, April 2008. (With R. Levi, R. Roundy, and M. Sviridenko.)

Lectures

- "A constant approximation algorithm for the *a priori* traveling salesman problem", Dagstuhl Workshop on Randomization and Algorithms, (September 2007).
- "Approximation algorithms for stochastic inventory control models" Invited tutorial at INFORMS, Seattle, (October 2007).
- "Approximation algorithms for stochastic optimization problems," Columbia University, Distinguished IEOR-DRO Seminar, (December 2007).
- "A constant approximation algorithm for the *a priori* traveling salesman problem", JKL60, The Technical University of Eindhoven, (December 2007).
- "Approximation algorithms for stochastic optimization problems", Microsoft Research, Colloquium, (January 2008).
- "Approximation algorithms for stochastic optimization problems," Tutte Seminar, Department of Combinatorics and Optimization, University of Waterloo, (April 2008).
- "A constant approximation algorithm for the *a priori* traveling salesman problem", 13th MPS Conference on Integer Programming and Combinatorial Optimization, Bertinoro, Italy, (June 2008).

- “A constant approximation algorithm for the *a priori* traveling salesman problem”, New Algorithmic Paradigms in Optimization, ETH-Zurich, (June 2008).
- “Approximation algorithms for 2-stage stochastic optimization problems,” Tutorial lecture at New Algorithmic Paradigms in Optimization, ETH-Zurich, (June 2008).

Awards and Honors

- Fellow, Association for Computing Machinery (2002)
- Recipient, Sonny Yau Award for Excellence in Teaching, Cornell College of Engineering (1995, 1998, 2003)
- Recipient, National Science Foundation Presidential Young Investigator Award (1987)

Selected Publications

- “Using dual approximation algorithms for scheduling problems: Theoretical and practical results,” *Journal of the ACM*, 34:144-162 (1987). (With D.S. Hochbaum.)
- “Scheduling to minimize the average completion time: On-line and off-line approximation algorithms,” *Mathematics of Operations Research*, 22:513-544 (1997). (With L.A. Hall, A.S. Schulz, and J. Wein.)
- “Improved approximation algorithms for the uncapacitated facility location problem,” *SIAM Journal on Computing*, 33:1-25 (2003). (With F. Chudak.