

## A. Journal Papers

1. Calvin, J. A lower bound on convergence rates of nonadaptive algorithms for univariate optimization with noise. *Journal of Global Optimization* (accepted).
2. Calvin, J. Using excursions to analyze simulation output. *Probability in the Engineering and Informational Sciences* (accepted).
3. Calvin, J. Simulation output analysis using integrated paths II: Low bias estimators. *ACM Transactions on Computer Simulation* **19**, Issue 3, 28 pages.
4. Calvin, J. Randomized algorithm for global optimization with bounded memory. *Mathematics and Computers in Simulation* (accepted; available online from Elsevier Dec. 12, 2008).
5. Calvin, J. Simulation output analysis using integrated paths. *ACM Transactions on Computer Simulation* **17**, Issue 3, 2007, 24 pages.
6. Calvin, J. A lower bound on the complexity of optimization on the Wiener space. *Theoretical Computer Science* **383(2)**, 2007, pp. 132–139.
7. Calvin, J., Glynn, P. and M. Nakayama. The semi-regenerative method of simulation output analysis. *ACM Transactions on Computer Simulation* **16**, 2006, pp. 280–315.
8. Calvin, J. and M. Nakayama. Permuted standardized time series for steady-state simulations. *Mathematics of Operations Research* **31**, 2006, pp. 351–368.
9. Calvin, J. and A. Žilinskas. One-dimensional global optimization for observations with noise. *Computers and Mathematics with Applications* **50**, 2005, pp. 157–169.
10. Alexander, D., Bulger, D., Calvin, J., Romeijn, H. E., and R. Sheriff. Approximate implementations of pure random search in the presence of noise. *Journal of Global Optimization* **31**, 2005, pp. 601–612.
11. Calvin, J. and M. Nakayama. Permuted derivative and importance-

- sampling estimators for regenerative simulations. *European Journal of Operational Research* **156-2**, 2004, pp. 390-414.
12. Calvin, J. Lower Bound on Complexity of Optimization of Continuous Functions. *Journal of Complexity* **20**, 2003, pp. 773-795.
  13. Calvin, J. and J. Y-T. Leung. Average-case analysis of a greedy algorithm for the 0/1 knapsack problem. *Operations Research Letters* **31-3**, 2003, pp. 202-210.
  14. Calvin, J. and A. Žilinskas. On convergence of a P-algorithm based on a statistical model of continuously differentiable functions. *Journal of Global Optimization* **19**, 2001, pp. 229-245.
  15. Calvin, J. A one-dimensional optimization algorithm and its convergence rate under the Wiener measure. *Journal of Complexity* **17-2**, 2001, pp. 306-344.
  16. Calvin, J. and M. Nakayama. Central limit theorems for permuted regenerative estimators. *Operations Research* **48**, 2000, pp. 776-787.
  17. Calvin, J. and A. Žilinskas. A one-dimensional P-algorithm with convergence rate  $O(n^{-3+\delta})$  for smooth functions. *Journal of Optimization Theory and Applications*, Vol. 106, No. 2, 2000, pp. 297-307.
  18. Calvin, J. and M. Nakayama. Simulation of processes with multiple regeneration sequences. *Probability in the Engineering and Informational Sciences*, Vol 14, 2000, pp. 179-201.
  19. Calvin, J. and A. Žilinskas. On the choice of statistical model for one-dimensional P-algorithms. *Cybernetics and Control*, Vol. 29, 2000, pp. 555-565.
  20. Calvin, J. and A. Žilinskas. On convergence of the P-algorithm for one dimensional global optimization of smooth functions. *Journal of Optimization Theory and Applications*, Vol. 102, No. 3, 2000, pp. 479-495.
  21. Al-Mharmah, H. and J. Calvin. Comparison of one-dimensional

- composite and non-composite passive algorithms. *Journal of Global Optimization*, Vol. 15, 2000, pp. 169–180.
22. Calvin, J. and M. Nakayama. Using permutations in regenerative simulations to reduce variance. *ACM Transactions on Modeling and Computer Simulation*, **8**, 1997, pp. 153–193.
  23. Calvin, J. and P. Glynn. Average case behavior of random search for the maximum. *Journal of Applied Probability* **34**, 1997, pp. 632-643.
  24. Calvin, J. Average performance of a class of adaptive algorithms for global optimization. *Annals of Applied Probability* **7**, 1997, pp. 711-730.
  25. Calvin, J. and P. Glynn. Complexity of non-adaptive optimization algorithms for a class of diffusions. *Communications in Statistics. Stochastic Models* **12** No. 3, 1996, pp. 343-365.
  26. Al-Mharmah, H. and J. Calvin. Optimal random non-adaptive algorithm for global optimization of Brownian motion. *Journal of Global Optimization* **8** No. 1, 1996, pp. 81–90.
  27. Calvin, J. Average performance of passive algorithms for global optimization. *Journal of Mathematical Analysis and Applications*, **191**, 1995, pp. 608–617.
  28. Andraddóttir, S., J. Calvin and P. W. Glynn. Accelerated regeneration for Markov chain simulations. *Probability in the Engineering and Informational Sciences* **9**, 1995, pp. 497–523.
  29. Calvin, J. Return state independent quantities in regenerative simulation. *Operations Research* **42**, 1994, pp. 531–542.
  30. Ramudhin, A., Bartholdi, J., Calvin, J., VandeVate, J., and G. Weiss. A probabilistic analysis of 2-machine flowshops. *Operations Research* **44**, 1993, pp. 899–908.
  31. Calvin, J. Consistency of a myopic Bayesian algorithm for one-dimensional global optimization. *Journal of Global Optimization* **3**, 1993, pp. 223–232.

## B. Book Chapters

1. J. M. Calvin. Nonadaptive univariate optimization for observations with noise. *Models and Algorithms for Global Optimization*, Springer Verlag, New York, 2007, pp. 185–192.
2. J. M. Calvin and A. Žilinskas. One-dimensional Global Optimization Based on Statistical Models. *Stochastic and Global Optimization*, Kluwer Academic Publishers, Dordrecht, 2002, pp. 49–63.
3. J. M. Calvin. Adaptive global search. *Encyclopedia of Optimization*, P. Pardalos and C. Floudas (Eds.), Kluwer Academic Publishers, Boston, 2001.
4. J. M. Calvin. Convergence rate of the P-algorithm for optimization of continuous functions. In *Approximation and Complexity in Numerical Optimization: Continuous and Discrete Problems*, P. Pardalos (Ed.), Kluwer Academic Publishers, Boston, 1999, pp. 116–129.
5. J. M. Calvin. Asymptotically optimal deterministic non-adaptive algorithms for minimization of Brownian motion. In *The Mathematics of Numerical Analysis*, J. Renegar, M. Shub, and S. Smale, (Eds.), American Mathematical Society, Lectures in Applied Mathematics Vol. 32, Providence, 1995, pp 157–163.
6. J. M. Calvin. Non-adaptive coverings for optimization of Gaussian random fields. In *Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing*. H. Niederreiter and P. Shiue (Eds.). Lecture Notes in Statistics #106, Springer-Verlag, New York, 1995, pp. 149–157.

## C. Refereed Conference Papers

1. Calvin, J. Low bias integrated path estimators. Proceedings of the 2007 Winter Simulation Conference, S. G. Henderson, B. Biller, M.-H. Hsieh, J. Shortle, J. D. Tew, and R. R. Barton, eds. (IEEE Press), Washington, DC, 2007, pp. 303-307.
2. Calvin, J. Experimental evaluation of integrated path estimators. Proceedings of the 2006 Winter Simulation Conference, L. F. Per-

- rone, F. P. Wieland, J. Liu, B. G. Lawson, D. M. Nicol, and R. M. Fujimoto, eds. (IEEE Press), Washington, DC, 2006, pp. 329-332.
3. Calvin, J. Simulation output analysis based on excursions. Proceedings of the 2004 Winter Simulation Conference, R. G. Ingalls, M. D. Rossetti, J. S. Smith, and B. A. Peters, eds. (IEEE Press), Washington, DC, 2004, pp. 681-684.
  4. Calvin, J. and Nakayama, M. K. Permuted weighted area estimators. Proceedings of the 2004 Winter Simulation Conference, R. G. Ingalls, M. D. Rossetti, J. S. Smith, and B. A. Peters, eds. (IEEE Press), Washington, DC, 2004, pp. 721-727.
  5. Calvin, J. and Zilinskas, A. On global optimization in the presence of noise. International Conference on Modelling and Simulation of Business Systems, H. Pranevicius, E. Zavadskas and B. Rapp, eds. Kaunas, 2003, pp. 7-9.
  6. Calvin, J. and Nakayama, M. K. A Comparison of Output-Analysis Methods for Simulations of Processes with Multiple Regeneration Sequences. Proceedings of the 2002 Winter Simulation Conference, E. Yücesan, C.-H. Chen, J. L. Snowdon, and J. M. Charnes, eds. (IEEE Press), Washington, DC, 2002, pp. 325-328.
  7. Calvin, J. Efficient Simulation for Discrete Path-Dependent Option Pricing. Proceedings of the 2001 Winter Simulation Conference, B. A. Peters, J. S. Smith, D. J. Medeiros and M. W. Rohrer, eds. (IEEE Press), Washington, DC, 2001, pp. 325-328.
  8. Calvin, J. and M. K. Nakayama. Improving Standardized Time Series Methods by Permuting Path Segments. Proceedings of the 2001 Winter Simulation Conference, B. A. Peters, J. S. Smith, D. J. Medeiros and M. W. Rohrer, eds. (IEEE Press), Washington, DC, 2001, pp. 348-353.
  9. Calvin, J., Glynn, P. W. and M. K. Nakayama. Importance Sampling Using the Semiregenerative Method. Proceedings of the 2001 Winter Simulation Conference, B. A. Peters, J. S. Smith, D. J. Medeiros and M. W. Rohrer, eds. (IEEE Press), Washington, DC, 2001, pp. 441-450.

10. Calvin, J. Polynomial acceleration of Monte Carlo global search. Proceedings of the 1999 Winter Simulation Conference, P. A. Farrington, H. B. Nembhard, D. T. Sturrock, and G. W. Evans, eds. (IEEE Press), Phoenix Arizona, 1999, pp. 673-677.
11. Calvin, J., Glynn, P. and M. Nakayama. On the small-sample optimality of multiple-regenerative estimators. Proceedings of the 1999 Winter Simulation Conference, P. A. Farrington, H. B. Nembhard, D. T. Sturrock, and G. W. Evans, eds. (IEEE Press), Phoenix Arizona, 1999, pp. 655-661.
12. Calvin, J. and A. Zilinskas. On convergence of the P-algorithm for one dimensional global optimization. Fifth International Conference on Pattern Recognition and Information Processing. Minsk, Belarus, May 1999, pp. 113-116.
13. Calvin, J. and M. Nakayama. Permuted regenerative estimators. Proceedings of the Third St. Petersburg Workshop on Simulation, St. Petersburg, Russia, 1998, pp. 9-15.
14. Calvin, J. and M. Nakayama. Exploiting multiple regeneration sequences in simulation output analysis. Proceedings of the 1998 Winter Simulation Conference, D.J. Medeiros, E.F. Watson, J.S. Carson and M.S. Manivannan, eds. (IEEE Press), Washington, DC, 1998, pp. 695-700.
15. Al-Mharmah, H. and J. Calvin. Comparison of Monte Carlo and deterministic methods for global optimization. Proceedings of the 1997 Winter Simulation Conference, S. Andradóttir, K. J. Healy, D. H. Withers, and B. L. Nelson, eds. (IEEE Press), Atlanta, Georgia, 1997, pp. 348-351.
16. Calvin, J. and M. Nakayama. A new variance reduction technique for regenerative simulations of Markov chains. Proceedings of the 1997 Winter Simulation Conference, S. Andradóttir, K. J. Healy, D. H. Withers, and B. L. Nelson, eds. (IEEE Press), Atlanta, Georgia, 1997, pp. 224-229.
17. Calvin, J. Average performance of Monte-Carlo and quasi-Monte Carlo methods for global optimization. Proceedings of the 1994

Winter Simulation Conference, J. Tew, S. Manivannan, D. Sadowski, A. Seila, eds. (IEEE Press), Lake Buena Vista, Florida, 1994, pp. 262-265.

18. Andraddóttir, S., J. Calvin, and P. W. Glynn. Increasing the frequency of regeneration for Markov processes. Proceedings of the 1994 Winter Simulation Conference, J. Tew, S. Manivannan, D. Sadowski, A. Seila, eds. (IEEE Press), Lake Buena Vista, Florida, 1994, pp. 320-323.
19. Calvin, J. Covariance of regenerative mean and standard deviation estimators for Markov chains. Proceedings of the 1988 Winter Simulation Conference, M. Abrams, P. Haigh, and J. Comfort, eds. (IEEE Press), San Diego, California, 1988, pp. 473-475.

#### D. Published Reports

1. J. M. Calvin. Planning accessions of Air Force Enlisted Personnel. RAND Corp. Working Draft, 1988.