

## Alden H. Wright

Curriculum Vitae  
September 30, 2010

### **Positions and Employment**

1969-1970	Assistant Professor, Mathematics, University of Utah, Salt Lake City, UT
1970-1974	Assistant Professor, Mathematics, Western Michigan University, Kalamazoo, MI
1974-1981	Associate Professor, Mathematics, Western Michigan University, Kalamazoo, MI
1981-1983	Professor, Mathematics, Western Michigan University, Kalamazoo, MI
1983-1986	Associate Professor, Computer Science, University of Montana, Missoula, MT
1986-2002	Professor, Computer Science, University of Montana, Missoula, MT
2002-2009	Professor and Chair, Computer Science, University of Montana, Missoula, MT
2009-present	Research and Emeritus Professor, Computer Science, University of Montana, Missoula

### **Honors**

1964	Phi Beta Kappa
1964-1968	National Science Foundation Graduate Fellowship, Mathematics
1970	National Science Foundation Research Grant, Junior Investigator
1973, 1975, 1980, 1983	WU Summer Faculty Research Fellowship
1978-1979	Sabbatical spent at the School of Operations Research, Cornell University
1993-1994	Sabbatical at the Department of Computer Science, University of Tennessee
2001-2002	Sabbatical at the School of Computer Science, University of Birmingham, UK
1988, 1990, 1994, 1996, 1997, 2005	University of Montana Merit Raises

### **Selected peer-reviewed publications (in chronological order, since 2000).**

1. Wright, A. H., R. K. Thompson, and J. Zhang. 2000. The computational complexity of N-K fitness functions. *IEEE Transactions on Evol Comput* 4:373-379.
2. Vose, M. D., and A. H. Wright. 2001. Form invariance and implicit parallelism. *Evol Comput* 9:355-70.
3. Wright, A. H., and A. Agapie. 2001. Cyclic and Chaotic Behavior in Genetic Algorithms, p. 718-724. *Genetic and Evolutionary Computation Conference*. Morgan Kaufmann Publishers Inc., San Francisco, CA.
4. Wright, A. H., and J. E. Rowe. 2001. Continuous Dynamical System Models of Steady-State Genetic Algorithms, p. 209-226. *In* W. N. Martin and W. M. Spears (ed.), *Foundations of Genetic Algorithms VI*. Morgan Kaufmann Publishers Inc.
5. Poli, R., J. E. Rowe, C. R. Stephens, and A. H. Wright. 2002. Allele Diffusion in Linear Genetic Programming and Variable-Length Genetic Algorithms with Subtree Crossover. *5th European Conference on Genetic Programming*. Springer-Verlag.
6. Poli, R., C. R. Stephens, A. H. Wright, and J. E. Rowe. 2002. On the Search Biases of Homologous Crossover in Linear Genetic Programming and Variable-length Genetic Algorithms. *Genetic and Evolutionary Computation Conference*. Morgan Kaufmann Publishers Inc.
7. Rowe, J. E., M. D. Vose, and A. H. Wright. 2002. Group properties of crossover and mutation. *Evol Comput* 10:151-84.

8. Stephens, C. R., R. Poli, A. H. Wright, and J. E. Rowe. 2002. Exact Results from A Coarse Grained Formulation of the Dynamics of Variable-length Genetic Algorithms. *Genetic and Evolutionary Computation Conference*. Morgan Kaufmann Publishers Inc.
9. Wright, A. H., J. E. Rowe, and J. R. Neil. 2002. Analysis of the simple genetic algorithm on the single-peak and double-peak landscapes. *Evol Comput* 1:214-219.
10. Wright, A. H., J. E. Rowe, R. Poli, and C. R. Stephens. 2002. A Fixed Point Analysis of a Gene Pool GA with Mutation. *Genetic and Evolutionary Computation Conference*. Morgan Kaufmann Publishers Inc.
11. Poli, R., C. R. Stephens, A. H. Wright, and J. E. Rowe. 2003. A schema theory based extension of Geiringer's theorem for linear GP and variable length GAs under homologous crossover. *Foundations of Genetic Algorithms VII*. Morgan Kaufmann Publishers Inc.
12. Wright, A. H., J. E. Rowe, R. Poli, and C. R. Stephens. 2003. Bistability in a gene pool GA with mutation. *Foundations of Genetic Algorithms VII*. Morgan Kaufmann Publishers Inc., San Mateo.
13. Heckendorn, R. B., and A. H. Wright. 2004. Efficient Linkage Discovery by Limited Probing. *Evol. Comput.* 12:517-545.
14. Richter, J. N., J. Paxton, and A. Wright. 2005. EA models and population fixed-points versus mutation rates for functions of unitation, p. 1233-1241. In H. G. Beyer (ed.), *Conference on Genetic and Evolutionary Computation*. ACM Press, Washington DC, USA.
15. Stephens, C. R., A. Zamora, and A. Wright. 2005. Perturbation theory and the renormalization group in genetic dynamics, p. 192-214. In A. H. Wright, M. D. Vose, K. A. De Jong, and L. M. Schmitt (ed.), *Foundations of Genetic Algorithms VIII*, vol. 3469. Springer, Aizu-Wakamatsu City, Japan.
16. Wright, A. H., and S. Pulavarty. 2005. On the convergence of an estimation of distribution algorithm based on linkage discovery and factorization, p. 695-703. In H. G. Beyer (ed.), *Conference on Genetic and Evolutionary Computation*. ACM Press, Washington DC, USA.
17. Wright, A. H., M. D. Vose, K. A. De Jong, and L. M. Schmitt (ed.). 2005. *Foundations of Genetic Algorithms VIII*, vol. 3469. Springer, Aizu-Wakamatsu City, Japan.
18. Mitavskiy, B., J. Rowe, A. Wright, and L. Schmitt. 2006. Exploiting Quotients of Markov Chains to Derive Properties of the Stationary Distribution of the Markov Chain Associated to an Evolutionary Algorithm, p. 726-733. *Simulated Evolution and Learning*.
19. Poli, R., A. H. Wright, N. F. McPhee, and W. B. Langdon. 2006. Emergent Behaviour, Population-based Search and Low-pass Filtering. *IEEE Transactions on Evol Comput*:88-95.
20. Rowe, J. E., M. D. Vose, and A. H. Wright. 2006. Differentiable coarse graining. *Theor. Comput. Sci.* 361:111-129.
21. Mitavskiy, B., J. E. Rowe, A. Wright, and L. M. Schmitt. 2008. Quotients of Markov chains and asymptotic properties of the stationary distribution of the Markov chain associated to an evolutionary algorithm. *Genetic Programming and Evolvable Machines* 9:109-123.
22. Richter, J. N., A. H. Wright, and J. Paxton. 2008. Ignoble Trails - where crossover is provably harmful. *10th International Conference on Parallel Problem Solving from Nature*. Technische Universität, Dortmund, Germany.
23. Rowe, J. E., and M. D. Vose. Reinterpreting No Free Lunch. *Evolutionary Computation*, 17 (1) 2009, 117-129.
24. Rowe, J. E., M. D. Vose, and A. H. Wright, 2010. Representation Invariant Genetic Operators, *Evolutionary Computation*, (early publication online, doi:10.1162/EVCO\_a\_00007).
25. Ovaska, S. J, B. Sick, and A. H. Wright, 2009. Periodical Switching between Related Goals for Improving Evolvability to a Fixed Goal in Multi-Objective Problems, *Information Sciences*, 179:4046-4056.
26. Wright, A. H., T. Gedeon, T., and J. N. Richter, 2011. On the Movement of Vertex Fixed Points in the Simple GA. *Foundations of Genetic Algorithms XI, SIGEVO*. (accepted).