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1. **Education**

   06/83—01/88: Ph.D. major in Engineering-Economic Systems and minor in Operations Research, Thesis Title "Interior Algorithms for Linear, Quadratic and Linearly Constrained Convex Programming," Stanford University, Stanford, California.

   10/87—11/87: Visiting Ph.D. Student, School of Operations Research and Industrial Engineering, Cornell University, Ithaca, New York.

   09/82—05/83: M.S. in Engineering-Economic Systems, Stanford University.

   03/78—01/82: B.S. in Systems and Control, Huazhong University of Science and Technology (HUST), Wuhan, The People's Republic of China.

2. **Professional Experience**

   1/98—: Henry B. Tippie Research Professor, Mathematical Programming, Algorithm Design and Analysis, Telecommunication, and Information Management Applications, Department of Management Sciences and Applied Mathematical and Computational Sciences, The University of Iowa, Iowa City, Iowa, USA.

   09/98—11/98: Visiting Fellow, Mathematical Science Research Institute, UC Berkeley, California.

   09/93—1/98: Professor, Department of Management Sciences, The University of Iowa, Iowa City, Iowa.

   08/93—12/93: Visiting Scientist, Cornell University, Ithaca, NY.

   06/93—present: Adjunct Professor of the Institute of Applied Mathematics, the Chinese Academy, Beijing, China.

   06/93—present: Adjunct Professor of Huazhong University of Science and Technology, Wuhan, China.

   09/90—8/93: Associate Professor, Department of Management Sciences, The University of Iowa, Iowa City, Iowa.

   07/91—8/91: Visiting Scientist, Rice University, Houston, TX.

   09/88—08/90: Assistant Professor, Department of Management Sciences, The University of Iowa, Iowa City, Iowa.

   11/87—08/88: Research Scientist, Optimization Software Development, Integrated Systems Inc., Santa Clara, California.

   09/86—06/87: Lecturer, Mathematical Programming and Systems Optimization, Department of Engineering-Economic Systems, Stanford University.

   06/83—06/86: Research Assistant, Mathematical Programming, Decision Systems and Network Planning, Department of Engineering-Economic Systems, Stanford University.

3. **Publications**

3.1 **Refereed Journal Publications**

[J86] "Solving large-scale sparse semidefinite programs for combinatorial optimization," (S. Benson, Y. Ye, and X. Zhang), Working Paper, Department of Management Sciences, The University of Iowa (September, 1997), to appear in *SIAM J. Optimization*.

[J85] "Approximating global quadratic optimization with convex quadratic constraints," Working Paper, Department of Management Sciences, The University of Iowa (July, 1998), to appear in *Journal of Global Optimization*.

[J84] "An efficient algorithm for minimizing a sum of P-norms," (G. Xue and Y. Ye), Working Paper, Department of Management Sciences, The University of Iowa (September, 1997), to appear in *SIAM J. Optimization*.

[J83] "Semidefinite relaxations, multivariate normal distributions, and order statistics," (D. Bertsimas and Y. Ye), Working Paper, Sloan School, MIT (December, 1997), to appear in *Handbook of Combinatorial Optimization (Vol. 3)*, D.-Z. Du and P.M. Pardalos (Eds.) pp. 1-19, (1998 Kluwer Academic Publishers).

[J82] "Approximating quadratic programming with bound and quadratic constraints," (Y. Ye), *Mathematical Programming* **84** (1999) 219-226.

[J81] "On homotopy-smoothing methods for variational inequalities," (X. Chen and Y. Ye), AMR 96/39, Applied Mathematics Report, The University of New South Wales, Sydney (December, 1996), to appear in *SIAM J. Control and Optimization*.

[J80] "On the quadratic convergence of the $O(\sqrt{n}L)$-iteration homogeneous and self-dual linear programming algorithm," (F. Wu, S. Wu, and Y. Ye), *Annals of Operations Research* **87** (1999) 393-406.

[J79] "A computational study of the homogeneous algorithm for large-scale convex optimization," (E. Andersen and Y. Ye), *Computational Optimization and Applications* **10** (1998) 243-269.

[J78] "Average performance of an infeasible interior-point algorithm for linear programming," (K. Anstreicher, J. Ji, F. Potra and Y. Ye) Technical *Mathematics of Operations Research* **24** (1999) 176-192.

[J77] "Infeasible-start primal-dual methods and infeasibility detectors for nonlinear programming problems," (Yu. Nesterov, M.J. Todd, and Y. Ye), *Mathematical Programming* **84** (1999) 227-267.

[J76] "Constrained logarithmic least squares in parameter estimation," (E. Bai and Y. Ye), *IEEE Trans. on Auto. Contr.* **44:1** (1999), 182-185.

[J75] "Approximation algorithms for quadratic programming," (M. Fu, Z.-Q. Luo, and Y. Ye), *Journal of Combinatorial Optimization* **2(1)** (1998) 29-50.

[J74] "On the complexity of approximating a KKT point of quadratic programming," (Y. Ye), *Mathematical Programming* **80** (1998) 195-212.

[J73] "On a homogeneous algorithm for the monotone complementarity problem," (E. Andersen and Y. Ye), *Mathematical Programming* **84** (1999) 375-400.

[J72] "Bounded error parameter estimation: a sequential analytic center approach," (E. Bai, Y. Ye and R. Tempo), *IEEE Trans. on Auto. Contr.* **44:6** (1999) 1107-1117.

[J71] " How partial knowledge helps to solve linear programs," *Journal of Complexity* **12** (1996) 480-491.

[J70] "Approximate Farkas lemmas and stopping rules for iterative infeasible-point algorithms for linear programming," (M. J. Todd and Y. Ye), *Mathematical Programming* **81** (1998) 1-22.

[J69] "Efficient algorithms for minimizing a sum of Euclidean norms with applications," (G. Xue and Y. Ye), *SIAM J. Optimization* **7** (1997) 1017-1036.

[J68] "Complexity analysis of the analytic center cutting plane method that uses multiple cuts," (Y. Ye), *Mathematical Programming* **78** (1997) 85-104.

[J67] "On the relationship between layered least squares and affine scaling steps," (S. Vavasis and Y. Ye), *Lectures in Applied Mathematics* **32** (1996) 857-866.

[J66] "An infeasible interior-point algorithm for solving primal and dual geometric programs," (K. O. Kortanek, X. Xu, and Y. Ye), *Mathematical Programming* **76** (1997) 155-182.

[J65] "A primal-dual interior-point method whose running time depends only on the constraint matrix," (S. Vavasis and Y. Ye), *Mathematical Programming* **74** (1996) 79-120.

[J64] "On homogeneous and self-dual algorithm for LCP," *Mathematical Programming* **76** (1997) 211-222.

[J63] "Combining interior-point and pivoting algorithms for linear programming," (E. D. Andersen and Y. Ye), *Management Science* **42** (1996) 1719-1731.

[J62] "Improved complexity using higher-order correctors for primal-dual Dikin affine scaling," (B. Jansen, C. Roos, T. Terlaky and Y. Ye), *Mathematical Programming* **76** (1997) 117-130.

[J61] "Interior-point methods for nonlinear complementarity problem," (F. Potra and Y. Ye), *Journal of Optimization Theory and Application* **88** (1996) 617-642.

[J60] "A lower bound on the number of iterations of long-step and polynomial interior-point linear programming algorithms," (M. Todd and Y. Ye), *Annals of Operations Research* **62** (1996) 233-252.

[J59] "A convergent algorithm for quantile regression with smoothing splines," (R. J. Bosch, Y. Ye, and G. G. Woodworth), *Computational Statistics & Data Analysis* **19** (1995) 613-630.

[J58] "A asymptotical $O(\sqrt{n}L)$-iteration path-following linear programming algorithm that uses long steps," (P. Hung and Y. Ye), *SIAM J. Optimization* **6** (1996) 570-586.

[J57] "A generalized homogeneous and self-dual linear programming algorithm," (X. Xu and Y. Ye), *Operations Research Letters* **17** (1995).

[J56] "A simplification of the homogeneous and self-dual linear programming algorithm and its implementation," (X. Xu, P. Hung and Y. Ye), *Annals of Operations Research* **62** (1996) 151-172.

[J55] "Condition numbers for polyhedra with real number data," (S. Vavasis and Y. Ye), *Operations Research Letters* **17** (1995) 209-214.

[J54] "Identifying an optimal basis in linear programming," (S. Vavasis and Y. Ye), *Annals of Operations Research* **62** (1996) 565-572.

[J53] "On the von Neumann economic growth problem," *Mathematics of Operations Research* **20** (1995) 617-633.

[J52] "Complexity analysis of an interior-point cutting plane method for convex feasibility problem," (J. Goffin, Z. Luo and Y. Ye), *SIAM J. Optimization* **6** (1996) 638-652.

[J51] "Specially structured uncapacitated facility location problems," (P. Jones, T. Lowe, G. Muller, N. Xu, Y. Ye, and J. Zydiak), *Operations Research* **43** (1995) 661-669.

[J50] "A surface of analytic centers and infeasible-interior-point algorithms for linear programming," (S. Mizuno, M. Todd, and Y. Ye), *Mathematics of Operations Research* **20** (1995) 135-162.

[J49] "An $O(\sqrt{n}L)$-iteration homogeneous and self-dual linear programming algorithm," (Y. Ye, M. Todd and S. Mizuno), *Mathematics of Operations Research* **19** (1994) 53-67.

[J48] "Combining binary search and Newton's method to compute real roots for a class of real functions," *Journal of Complexity* **10** (1994) 271-280.

[J47] "Average performance of a self-dual interior-point algorithm for linear programming," (K. Anstreicher, J. Ji, F. Potra and Y. Ye), in P. Pardalos eds., *Complexity in Numerical Optimization* (World Scientific, New Jersey, 1993) pp. 1-15.

[J46] "Toward probabilistic analysis of interior-point algorithms for linear programming," *Mathematics of Operations Research* **19** (1994) 38-52.

[J45] "On the convergence of the iteration sequence in primal-dual interior-point methods," (R. Tapia, Y. Zhang and Y. Ye), *Mathematical Programming* **68** (1995) 141-154.

[J44] "On quadratic and $O(\sqrt{n}L)$ convergence of a predictor- corrector algorithm for LCP," (Y. Ye and K. Anstreicher), *Mathematical Programming* **62** (1993) 537-552.

[J43] "A complexity analysis for interior-point algorithms based on Karmarkar's potential functions," (J. Ji and Y. Ye), *SIAM J. on Optimization* **4** (1994) 512-520.

[J42] "Translation cuts for convex minimization," (J. Burke, A. Goldstein, P. Tseng and Y. Ye), in P. Pardalos eds., *Complexity in Numerical Optimization* (World Scientific, New Jersey, 1993) pp. 57-73.

[J41] "The optimal choice of inputs under time of use pricing, fixed proportions technology and adjustment costs: an application to industrial firms," (Y. Spector, A. Tishler and Y. Ye), *Management Sciences* **41** (1995) 1679-1692.

[J40] "A decomposition variant of the potential reduction algorithm for linear programming," (J. Kaliski and Y. Ye), *Management Science* **39** (1993) 757-776.

[J39] "Minimal adjustment costs, factor demands, and seasonal time-of-use electricity rates," (A. Tishler and Y. Ye), *Resource and Energy Economics* **15** (1993) 313-335.

[J38] "On finding an interior point on the optimal face of linear programs," (S. Mehrotra and Y. Ye), *Mathematical Programming* **62** (1993) 497-516.

[J37] "On the finite convergence of interior-point algorithms for linear programming," *Mathematical Programming* **57** (1992) 325-335.

[J36] "A quadratically convergent $O(\sqrt{n}L)$-iteration algorithm for linear programming," (Y. Ye, O. Güler, R. Tapia and Y. Zhang), *Mathematical Programming* **59** (1993) 151-162.

[J35] "Convergence behavior of some interior-point algorithms," (O. Güler and Y. Ye), *Mathematical Programming* **60** (1993) 215-228.

[J34] "A fully polynomial-time approximation algorithm for computing a stationary point of the general LCP," *Mathematics of Operations Research* **18** (1993) 334-345.

[J33] "A quadratically convergent polynomial interior-point algorithm for solving entropy optimization problems," (F. Potra and Y. Ye), *SIAM J. on Optimization* **3** (1993) 843-860.

[J32] "On adaptive-step primal-dual interior-point algorithms for linear programming," (S. Mizuno, M. Todd and Y. Ye), *Mathematics of Operations Research* **18** (1993) 964-981.

[J31] "A further result on potential reduction algorithm for the P-matrix linear complementarity problem," in P. Pardalos eds., *Advances in Optimization and Parallel Computing* (North-Holland, NY, 1992) pp 310-316.

[J30] "Implementation of interior-point algorithms for some entropy optimization problems," (C. Han, P. Pardalos and Y. Ye) *Optimization Methods and Software* **1** (1992) 71-80.

[J29] "Solutions of P_0-matrix linear complementarity problems," (P. Pardalos, Y. Ye, C. Han and J. Kaliski) *SIAM J. on Matrix Anal. Appl.* **14** (Oct. 1993) 1048-1060.

[J28] "Near-boundary behavior of the primal-dual potential reduction algorithm for linear programming," (Y. Ye, K. Kortanek, J. Kaliski and S. Huang) *Mathematical Programming* **58** (1993) 243-255.

[J27] "A new complexity result on minimization of a quadratic function with a sphere constraint," in C. Floudas and P. Pardalos eds., *Recent Advances in Global Optimization* (Princeton University Press, NJ, 1992).

[J26] "A potential reduction algorithm allowing column generation," *SIAM J. on Optimization* **2** (1992) 7-20.

[J25] "Convergence behavior of Karmarkar's projective algorithm for solving a simple linear program," (J. Kaliski and Y. Ye) *Operations Research Letters* **10** (1991) 389-393.

[J24] "Comparative analysis of affine scaling algorithms for linear programming," *Mathematical Programming* **52** (1992) 405-414.

[J23] "An extension of the potential reduction algorithm for solving LCP with priority goals," (J. Kaliski and Y. Ye) *Linear Algebra and its Applications* **193** (1993) 35-50.

[J22] "On affine scaling algorithms for nonconvex quadratic programming," *Mathematical Programming* **56** (1992) 285-300.

[J21] "Extensions of the potential reduction algorithm for linear programming," *Journal of Optimization Theory and Applications* **72** (1992) 487-498.

[J20] "On some efficient interior point methods for nonlinear convex programming," (K. Kortanek, F. Potra and Y. Ye) *Linear Algebra and its Applications* **152** (1991) 169-189.

[J19] "Interior-point algorithms for quadratic programming," in S. Kumar ed., *Recent Developments in Mathematical Programming* (Gordon & Breach Scientific Publishers, Philadelphia, 1991).

[J18] "Computational aspects of an interior point algorithm for quadratic programming problems with box constraints," (C. Han, P. Pardalos and Y. Ye) in T. F. Coleman and Y. Li eds., *Large-Scale Numerical Optimization* (SIAM, Philadelphia, 1990) 92-112.

[J17] "Interior-point algorithms for global optimization," *Annals of Operations Research* **25** (1990) 59-74.

[J16] "A class of LCPs solvable in polynomial time," (Y. Ye and P. Pardalos) *Linear Algebra and its Applications* **152** (1991) 3-17.

[J15] "Algorithms for the solution of quadratic knapsack problems," (P. Pardalos, C. Han and Y. Ye) *Linear Algebra and its Applications* **152** (1991) 69-91.

[J14] "Containing and shrinking ellipsoids in the path-following algorithm," (Y. Ye and M. Todd) *Mathematical Programming* **47** (1990) 1-9.

[J13] "A class of projective transformations for linear programming," *SIAM J. on Computing* **19** (1990) 457-466.

[J12] "An $O(n^3L)$ potential reduction algorithm for linear programming," *Mathematical Programming* **50** (1991) 239-258.

- [J11] "An interior point potential reduction algorithm for the linear complementarity problem," (M. Kojima, N. Megiddo and Y. Ye) *Mathematical Programming* **54** (1992) 267-279.
- [J10] "A centered projective algorithm for linear programming," (M. Todd and Y. Ye) *Mathematics of Operations Research* **15** (1990) 508-529.
- [J9] "Recovering optimal basic variables in Karmarkar's polynomial algorithm for linear programming," *Mathematics of Operations Research* **15** (1990) 564-571.
- [J8] "A 'build-down' scheme for linear programming," *Mathematical Programming* **46** (1990) 61-72.
- [J7] "An extension of Karmarkar's algorithm and the trust region method for quadratic programming," in *Progress in Mathematical Programming* (N. Megiddo ed.), Springer Verlag New York (1989) 49-63.
- [J6] "An extension of Karmarkar's projective algorithm for convex quadratic programming," (Y. Ye and E. Tse) *Mathematical Programming* **44** (1989) 157-179.
- [J5] "Eliminating columns in the simplex method for linear programming," *Journal of Optimization Theory and Applications* **63** (1989) 103-111.
- [J4] "Karmarkar's algorithm and the ellipsoid method," *Operations Research Letters* **4** (1987) 177-182.
- [J3] "Recovering optimal dual solutions in Karmarkar's polynomial algorithm for linear programming," (Y. Ye and M. Kojima) *Mathematical Programming* **39** (1987) 305-317.
- [J2] "A conclusion on 'missing number' in ergodic exponents of $s \times s$ stochastic matrices," *Journal of Huazhong University of Science and Technology* **2** (1983).
- [J1] "Directed graphs, linear Diophantine equations, and ergodic problems of stochastic matrices," English Edit. *Journal of Huazhong University of Science and Technology* **2** (1982).

3.2 Books and Refereed Book Papers

- [C7] *Interior-Point Algorithm: Theory and Analysis*, Wiley-Interscience Series in Discrete Mathematics and Optimization, John Wiley & Sons, 1997.
- [C6] "On a Homogeneous Algorithm for a Monotone Complementarity Problem with Nonlinear Equality Constraints," (E. Andersen and Y. Ye), in Michael C. Ferris and Jong-Shi Pang, eds., *Complementarity and variational Problems: State of the art* (SIAM, 1997) pp. 1-11.
- [C5] "An accelerated interior-point method whose running time depends only on A," (S. Vavasis and Y. Ye), *Proc. of the Twenty-Sixth ACM Symposium on Theory of Computing* (1994) 512-521.
- [C4] "A genuine quadratically convergent polynomial interior point algorithm for linear programming," (Z.-Q. Luo and Y. Ye) in Ding-Zhu Du and Jie Sun, eds., *Advances in Optimization and Approximation* (Kluwer Academic Publishers, Boston, 1994).
- [C3] "On the complexity of a column generation algorithm for convex or quasiconvex feasibility problems," (J. Goffin, Z. Luo and Y. Ye), in W. Hager, D. Hearn and P. Pardalos eds., *Large Scale Optimization: State of the Art* (Kluwer Academic Publishers, Boston, 1994) pp. 182-191.
- [C2] "On the Q-order of convergence of interior-point algorithms for linear programming," in Wu Fang, ed., *Proc. of the 1992 Symp. on Applied Mathematics* (Institute of Applied Mathematics, Chinese Academy of Sciences, 1992).

[C1] "Interior-point algorithms for solving nonlinear optimization problems," (C. Han, P. Pardalos and Y. Ye) *COAL Newsletter* **19** (1991) 45-54.

3.3 **Working Papers**

[W13] "A .699 approximation algorithm for Max-Bisection," Working Paper, Department of Management Sciences, The University of Iowa (March, 1999).

[W12] "Computational Optimization Laboratory Positive Semidefinite Programming User Guide," (S. Benson, Y. Ye, and X. Zhang), Working Paper, Department of Management Sciences, The University of Iowa (February, 1999).

[W11] "Analytic center approach to bounded error parameter estimation: convergence analysis and stochastic properties," (E. Bai, M. Fu, R. Tempo, and Y. Ye), Working Paper, Dept. of ECE, The University of Iowa, Iowa (Oct, 1998).

[W10] "Probabilistic analysis of two complexity measures for linear programming problems," (M. Todd, L. Tuncel, Y. Ye), Working Paper, Department of Management Sciences, The University of Iowa (September, 1998).

[W9] "Mixed linear and semidefinite programming for combinatorial and quadratic optimization," (S. Benson, Y. Ye, and X. Zhang), Working Paper, Department of Management Sciences, The University of Iowa (February, 1998).

[W8] "Convergence behavior of the central path for homogeneous and self-dual cones," (Y. Ye), Working Note, Department of Management Sciences, The University of Iowa (December, 1995).

[W6] "A superlinearly convergent $O(\sqrt{n}L)$-iteration algorithm for linear programming," (Y. Ye, R. Tapia and Y. Zhang) TR91-22, Department of Mathematical Sciences, Rice University (1991).

[W5] "A low complexity combined phase I-phase II potential reduction algorithm for linear programming," Working Paper No. 91-1, College of Business Administration, The University of Iowa (1991).

[W4] "Line search in potential reduction algorithms for linear programming," Working Paper, College of Business Administration, The University of Iowa (1989).

[W3] "A 'build-up' interior method for linear programming," (G. Dantzig and Y. Ye) SOL Report, Department of Operations Research, Stanford University (1990).

[W2] "Bimatrix equilibrium points and potential functions," Working Paper No. 88-16, College of Business Administration, The University of Iowa (1988).

[W1] "Further development of the interior algorithm for convex quadratic programming," manuscript, Stanford University and Integrated Systems Inc., Stanford, CA (1987).

4. **Professional Presentations**

Over 100 invited presentations.

5. **Professional Affiliations**

* Operations Research Society of America.
* Society for Industrial and Applied Mathematics.
* Mathematical Programming Society.

6. **Professional Activities**

* Associate Editor of *Mathematics of Operations Research* (1998-).

* Section Officer (Linear Programming) of the Institute for Operations Research and the Management Sciences, (1997-).
* Co-organizer of the 1999 DIMACS Princeton workshop on discrete optimization.
* Associate Editor of *Journal of the Operations Research Society of Japan* (1998-).
* Associate Editor of *SIAM Journal on Optimization* (1990-1997).
* Member of the International Advisory Committee for *the 15th and 16th International Symposium on Mathematical Programming* (1992-1997).
* Topic Coordinator for the 15th International Symposium on Mathematical Programming (1992-1994).
* NSF proposal review panelist (1994,1995,1996).
* Referee for *Mathematics of Operations Research*, *Mathematical Programming*, *Operations Research*, *Linear Algebra and its Applications*, and *Journal of Optimization Theory and Applications.*
* Reviewer for National Science Foundation, USA; Natural Sciences and Engineering Research Council of Canada, Sciences and Engineering Research Council of Chili.
* The Iowa Business School Faculty Research Committee, 1996-.
* The Iowa Business School Promotion and Tenure Committee, 1995-1996.
* The University of Iowa Vice President for Research Advisory Committee, 1994-1995.
* Director, the Management Science Computational Optimization Lab, 1994-.
* The University of Iowa Computing Service Committee, 1991-1993.

7. **Consulting Activities**

* Motorola.
* MCI Telecommunications.
* AT&T Bell Laboratory.
* Integrated Systems.

8. **Awards and Funded Research**

* Principle Organizer (1 of 2)—$15,000, Semidefinite Programming and Large-Scale Discrete Optimization Workshop, DIMACS and Princeton University, 1999.
* Research Fellow, Mathematical Science Research Institute, UC Berkeley—$3,500, 1998.
* Co-Principal Investigator (1 of 5)—$175,000, NSF Grant for Computational Infrastructure and Equipments, 1998-.
* Co-Principal Investigator (1 of 4)—$100,000, NSF Grant for Hybrid Optimization for Protein Structure, 1998-1999.
* Co-Principal Investigator (1 of 4)—$25,000, The University of Iowa Biosciences Initiative Pilot Grant, 1998.
* Principal Investigator (1 of 1)—$84,466, NSF Grant for computational complexity, 1997-2000.
* Australian Research Council, The University of New South Wales—$4,000, 1997.
* The Japan Education Ministry, The Institute of Statistical Mathematics—$3,000, 1996.

* Principal Investigator (1 of 1)—$195,000, NSF Grant for mathematical programming, 1995-1998.
* Dutch Organization for Scientific Research (NWO), Delft University—$12,000, 1994-1997.
* Obermann Fellowship—$1,750, 1994.
* The Cornell University Theory Center—$17,000, 1993-1994.
* Principal Investigator (1 of 1)—$148,571, NSF Grant for linear programming interior-point algorithms, 1993-1995.
* Award of K. C. WONG Education Foundation, Hong Kong—$2,500, 1993.
* Principal Investigator (1 of 1)—$81,578, NSF Grant for linear programming, 1990-1992.
* Principal Investigator (1 of 1)—$35,000, MCI Contract for real time restoration, 1991-1992.
* Principal Investigator (1 of 1)—$38,500, The College Summer Grants, College of Business of Administration, The University of Iowa, 1989-1997.
* Principal Investigator (1 of 2)—$10,800, The Center for Advanced Studies Interdisciplinary Research Grant, The University of Iowa, 1991-1992.