BIBLIOGRAPHY

DEPARTMENT OF COMPUTER SCIENCE
TECHNICAL REPORTS, 1963 - 1993

THEA MASHACK

Department of Computer Science
Stanford University
Stanford, California 94305

Abstract:

This report lists, in chronological order, all reports published by the Stanford Computer Science Department (CSD) since 1963. Each report is identified by CSD number, author's name, title, number of pages, and date. If a given report is available from the department at the time of this Bibliography's printing, price is also listed. For convenience, an author index is included in the back of the text. This report superses all previous editions. Some reports are noted with a National Technical Information Service (*NTIS*) retrieval number (i.e., AD-XXXXXX), if available from the *NTIS*. Other reports are noted with Knowledge Systems Laboratory (*KSL*) or Computer Systems Laboratory *(CSL*) numbers (KSL-XX-XX; CSL-TR-XX-XX), and may be requested from *KSL* or *CSL*, respectively.

INSTRUCTIONS

In the Bibliography which follows, there is a listing for each Computer Science Department report published as of the date of this writing. Each listing contains the following information:

- Report number(s)
- Author(s)
- Title
- Number of pages
- Month and year published
- NTIS number, if known
- Price of hardcopy version (standard price for microfiche: $2/copy
- Availability code

AVAILABILITY CODES

1. + hardcopy and microfiche
2. M microfiche only
3. H hardcopy only
4. * out-of-print

All Computer Science Reports, if in stock, may be requested from following address:

Publications
Computer Science Department
Stanford University
Stanford, CA 94305

phone: (415) 723-4776

ALTERNATIVE SOURCES

Rising costs and restrictions on the use of research funds for printing reports have made it necessary to charge for all manuscripts. For these same reasons, reports will not be reprinted if stated "out-of-print" or "out-of-stock", unless identified as *current* and *popular*. Such cases will be determined solely by the Publications Coordinator.

Reports that are out-of-print at Stanford University, in some cases, may be ordered (for a nominal fee), in either hard copy or microfiche from:

National Technical Information Service
P.O. Box 1553
Springfield, VA 22161

Another possible source for out-of-print reports is the Green Library at Stanford University. Please call (415) 723-9418, or send request for information to:

Technical Information Service
Green Library
Stanford University
Stanford, CA 94305

Reports that are also theses have been so marked and, if out-of-print at Stanford University , may be ordered in either hardcopy or microfiche from:

University Microfilms, International
P.O. Box 1764
Ann Arbor, MI 48106

Call toll-free: (800) 521-3042
Michigan, Alaska and Hawaii call: (313) 761-4700
Canada, call toll-free: (800) 268-6090

All Artificial Intelligence Memos, which are designated *AIM-XXX* in the bibliography, are also available in *microfiche* from Comtex Scientific Corporation. Please direct all inquiries about the price and availability of specific titles to:

Comtex Scientific Corporation
850 Third Avenue
New York, New York 10022

Reports identified by a *KSL* number may be ordered from the Stanford Knowledge Systems Laboratory. They may be contacted at the following address:

Publications
Stanford Knowledge Systems Laboratory
701 Welch Road
Building C
Palo Alto, CA 94304

phone: (415) 723-3445

Reports identified by a *CSL* number may be ordered from the Stanford Computer Systems Laboratory at the following:

Publications Coordinator
Computer Systems Laboratory
ERL 443
Stanford University
Stanford, CA 94305

phone: (415) 723-1430

HOW TO ORDER REPORTS

- ***Prepayment required with all orders.***

Send a written request for the reports you would like, ordering by the **STAN-CS-** number. ***Please enclose, with your order, a check or money order in the proper amount for all reports ordered***. Santa Clara County, San Mateo County, and Los Angeles County residents must add 8.25% sales tax. Residents of Monterey County must add 7.75% sales tax. All other California residents must add 7.25% sales tax. Purchase orders will not be accepted. The Publications Coordinator is not responsible for orders received without payment.

Regular purchasers should have a customer number, which must be used on all orders, payments, and correspondence. If you are not a regular purchaser, you will likely be given a customer number with your first order. We will send you the number which must then be used for all orders, payments, and correspondence.

We are offering a subscription rate, to academic libraries ONLY, for the amount of $350.00 per year (*This rate is subject to change after January, 1992*. Subscribers will receive all CSD reports published during their subscription period.

Please send all orders, payments, and correspondence to the following address:

Publications Coordinator
Computer Science Department
Building 460
Stanford University
Stanford, CA 94305

BIBLIOGRAPHY

1. STAN-CS-63-1 (AD462108), J. B. Rosen, *Primal Partition Programming for Block Diagonal Matrices*, 23 pages, November 1963. *****

2. STAN-CS-63-2 (AD427753), J. M. Pavkovich, *The Solution of Large Systems of Algebraic Equations*, 46 pages, December 1963. *****

3. STAN-CS-64-3 (AD430445), G. E. Forsythe (translated by), *The Theorems in a Paper by V. K. Saulev 'On an Estimate of the Error in Obtaining Characteristic Functions by the Method of Finite Differences'* , 6 pages, January 1964. *****

4. STAN-CS-64-4 (AD434858), Stefan Bergman and J. G. Herriot, *Numerical Solution of Boundary Value Problems by the Method of Integral Operators*, 24 pages, February 1964. *****

5. STAN-CS-64-5 (N-6519765), J. B. Rosen, *Existence and Uniqueness of Equilibrium Points for Concave N-Person Games*, 28 pages, March 1964. *****

6. STAN-CS-64-6 (AD600164), R. W. Hockney, *A Fast Direct Solution of Poisson's Fourier Analysis*, 28 pages, April 1964. *****

7. STAN-CS-64-7 (PB176753), J. B. Rosen, *Sufficient Conditions for Optimal Control of Convex Processes*, 29 pages, May 1964. *****

8. STAN-CS-64-8 (AD603116), G. H. Golub and W. Kahan, *Calculating the Singular Values and Pseudo-Inverse of a Matrix*, 33 pages, May 1964. *****

9. STAN-CS-64-9 (AD604012), Charles Anderson, *The QD-Algorithm as a Method for Finding the Roots of a Polynomial Equation When All Roots are Positive*, 74 pages, June 1964. *****

10. STAN-CS-64-10 (AD603163), R. L. Causey (thesis), *On Closest Normal Matrices*, 131 pages, June 1964. *****

11. STAN-CS-64-11 (PB176754), T. Nakamura and J. B. Rosen, *Elastic- Plastic Analysis of Trusses by the Gradient Projection Method*, 32 pages, July 1964. *****

12. STAN-CS-64-12 (AD608292), G. H. Golub and P. Businger, *Numerical Methods for Solving Linear Least Squares Problems (and* an Algol Procedure for Finding Linear Least Squares Solutions), 27 pages, August 1964. *****

13. STAN-CS-64-13 (N65-27058), V. Pereyra and J. B. Rosen, *Computation of the Pseudo-inverse of a Matrix of Unknown Rank*, 28 pages, September 1964. *****

14. STAN-CS-64-14 (TT-65-61724), V. A. Efimenko (translated by G. Reiter and C. Moler), *On Approximate Calculations of the Eigenvalues and Eigenfunctions of Boundary Value Problems in Partial Differential Equations*, 20 pages, November 1964. *****

15. STAN-CS-65-15 (AD611366), D. W. Grace (thesis), *Computer Search for Non-Isomorphic Convex Polyhedra*, 137 pages, January 1965. *****

16. STAN-CS-65-16 (AD611427), G. E. Forsythe and G. H. Golub, *Maximizing a Second Degree Polynomial on the Unit Sphere*, 31 pages, February 1965. *****

17. STAN-CS-65-17 (AD611434), G. E. Forsythe and N. Wirth, *Automatic Grading Programs*, 17 pages, February 1965. *****

18. STAN-CS-65-18 (AD612478), V. Pereyra, *The Difference Correction Method for Non-Linear Two-Point Boundary Value Problems*, February 1965. *****

19. STAN-CS-65-19 (TT-65-61839), M. I. Ageev and J. Maclaren, *English Equivalents of Metalinguistic Terms of Russian ALGOL*, March 1965. *****

20. STAN-CS-65-20 (PB176755), N. Wirth and H. Weber, *EULER: A Generalization of ALGOL and its Formal Definition*, 115 pages, April 1965. *****

21. STAN-CS-65-21 (PB176756), D. D. Fisher, J. von der Groeben and J. G. Toole, *Vectorgardiographic Analysis by Digital Computer, Selected Results*, 104 pages, May 1965. *****

22. STAN-CS-65-22 (AD616676), C. B. Moler (thesis), *Finite Difference Methods for the Eigenbales of Laplace's Operator*, 142 pages, May 1965. *****

23. STAN-CS-65-23 (AD618214), B. D. Rudin (thesis), *Convex Polynomial Approximation*, 44 pages, June 1965. *****

24. STAN-CS-65-24 (AD616611), V. V. Klyuyev and N. I. Kokovkin Shoherbak (translated by G. J. Tee), *On the Minimization of the Number of Arithmetic Operations for the Solution of Linear Algebraic Systems of Equations*, 24 pages, June 1965. *****

25. STAN-CS-65-25 (AD618215), P. G. Hodge, *Yield-Point Load Determination by Nonlinear Programming*, 24 pages, June 1965. *****

26. STAN-CS-65-26 (not at NTIS), G. E. Forsythe, *Stanford University's Program in Computer Science*, 15 pages, June 1965. *****

27. STAN-CS-65-27 (AD618216), E. A. Volkov (translated by R. Bartels), *An Analysis of One Algorithm of Heightened Precision of the Method of Nets for the Solution of Poisson's Equation*, 29 pages, July 1965. *****

28. STAN-CS-65-28 (AD618217), J. Miller and G. Strang, *Matrix Theorems for Partial Differential an Difference Equations*, 33 pages, July 1965. *****

29. STAN-CS-65-29 (AD624837), V. Pereyra, *On Improving an Approximate Solution of a Functional Equation by Deferred Corrections*, 32 pages, August 1965. *****

30. STAN-CS-65-30 (SS624-829), S. Marchuk (translated by G. J. Tee), *The Automatic Construction of Computational Algorithms*, 56 pages, September 1965. *****

31. STAN-CS-65-31 (SS626-315), P. A. Raviart, *On the Approximation of Weak Solutions of Linear Parabolic Equations by a Class of Multi-step Difference Methods*, 55 pages, December 1965. *****

32. STAN-CS-65-32 (SS633-557), R. W. Hockney, *Minimum Multiplication Fourier Analysis*, 53 pages, December 1965. *****

33. STAN-CS-65-33 (PB176763), N. Wirth, *A Programming Language for the 360 Computers*, 23 pages, December 1965. *****

34. STAN-CS-66-34 (SS630-998), J. M. Varah, *Eigenvectors of a Real Matrix by Inverse Iteration*, 24 pages, February 1966. *****

35. STAN-CS-66-35 (PB176758), N. Wirth and C. Hoare, *A Contribution to the Development of ALGOL*, 64 pages, February 1966. *****

36. STAN-CS-66-36 (PB176759), J. F. Traub, *The Calculation of Zeros of Polynomials and Analytic Functions*, 26 pages, April 1966. *****

37. STAN-CS-66-37 (PB176789), J. D. Reynolds, *Cogent 1.2 Operations Manual*, 33 pages, April 1966. *****

38. STAN-CS-66-38 (AIM-40, AD662880), J. McCarthy and J. Painter, *Correctness of a Compiler for Arithmetic Expressions*, 13 pages, April 1966. *****

39. STAN-CS-66-39 (PB176760), G. E. Forsythe, *A University's Educational Program in Computer Science*, 26 pages, May 1966. *****

40. STAN-CS-66-40 (AD639052), G. E. Forsythe, *How Do You Solve a Quadratic Equation?*, 19 pages, June 1966. *****

41. STAN-CS-66-41 (SS638-976), W. Kahan, *Accurate Eigenvalues of a Symmetric Tri-*

Diagonal Matrix, 53 pages, July 1966. *

42. STAN-CS-66-42 (SS638-797), W. Kahan, *When to Neglect Off-Diagonal Elements of Symmetric Tri-Diagonal Matrices*, 10 pages, July 1966. *

43. STAN-CS-66-43 (SS638-798), W. Kahan and J. Varah, *Two Working Algorithms for the Eigenvalues of a Symmetric Tri-Diagonal Matrix*, 28 pages, August 1966. *

44. STAN-CS-66-44 (SS638-818), W. Kahan, *Relaxation Methods for an Eigenvalue Problem*, 35 pages, August 1966. *

45. STAN-CS-66-45 (SS638-799), W. Kahan, *Relaxation Methods for Semi- Definite Systems*, 31 pages, August 1966. *

46. STAN-CS-66-46 (SS638-809), G. E. Forsythe, *Today's Computational Methods of Linear Algebra*, 47 pages, August 1966. *

47. STAN-CS-66-47 (PB173335), P. Abrams, *An Interpreter for 'Inverson Notation'* , 61 pages, August 1966. *

48. STAN-CS-66-48 (SS639-166), W. M. McKeeman (thesis), *An Approach to Computer Language Design*, 124 pages, August 1966. *

49. STAN-CS-66-49 (AIM-43, SS640-836), D. R. Reddy (thesis), *An Approach to Computer Speech Recognition by Direct Analysis of Speech Wave*, 143 pages, September 1966. *

50. STAN-CS-66-50 (AIM-46, PB176761), S. Persson (thesis), *Some Sequence Extrapolating Programs: A Study of Representation and Modelling in Inquiring Systems*, 176 pages, September 1966. *

51. STAN-CS-66-51 (AD648394), S. Bergman, J. G. Herriot and T. G. Kurtz, *Numerical Calculation of Transonic Flow Patterns*, 35 pages, October 1966. *

52. STAN-CS-66-52 (PB176762), A. C. Shaw, *Lecture Notes on a Course in Systems Programming*, 216 pages, December 1966. *

53. STAN-CS-66-53 (PB176757), N. Wirth, *A Programming Language for the 360 Computers*, 81 pages, December 1966. *

54. STAN-CS-67-54 (AD662882), G. H. Golub and T. N. Robertson, *A Generalized Bairstow Algorithm*, 10 pages, January 1967. *

55. STAN-CS-67-55 (AD647200), D. A. Adams, *A Stopping Criterion for Polynomial Root Finding*, 11 pages, February 1967. *

56. STAN-CS-67-56 (PB176764), F. L. Bauer, *QD-Method with New on Shift*, 6 pages, March 1967. *

57. STAN-CS-67-57 (PB176765), D. Gries, *The Use of Transition Matrices in Compiling*, 60 pages, March 1967. *

58. STAN-CS-67-58 (PB176766), V. Tixier (thesis), *Recursive Functions of Regular Expressions in Language Analysis*, 146 pages, March 1967. *

59. STAN-CS-67-59 (SS650-116), J. H. Wilkinson, *Almost Diagonal Matrices with Multiple or Close Eigenvalues*, 18 pages, April 1967. *

60. STAN-CS-67-60 (SS650-117), J. H. Wilkinson, *Two Algorithms Based on Successive Linear Interpolation*, 13 pages, April 1967. *

61. STAN-CS-67-61 (SS650-610), G. E. Forsythe, *On the Asymptotic Directions of the S-Dimensional Optimum Gradient Method*, 43 pages, April 1967. *

62. STAN-CS-67-62 (SS650-620), M. Tienari, *Varying Length Floating Point Arithmetic: A Necessary Tool for the Numerical Analyst*, 38 pages, April 1967. *

63. STAN-CS-67-63 (SS650-627), G. Polya, *Graeffe's Method for Eigenvalues*, 9 pages, April 1967. *****

64. STAN-CS-67-64 (SS651-201), P. Richman, *Floating-Point Number Representations: Base Choice Versus Exponent Range*, 32 pages, April 1967. *****

65. STAN-CS-67-65 (PB176767), N. Wirth, *On Certain Basic Concepts of Programming Languages*, 30 pages, May 1967. *****

66. STAN-CS-67-66 (AD652921), J. M. Varah (thesis), *The Computation of Bounds for the Invariant Subspaces of a General Matrix Operator*, 240 pages, May 1967. *****

67. STAN-CS-67-67 (AD652992), R. H. Bartels and G. H. Golub, *Computational Considerations Regarding the Calculation of Chebyshev Solutions for Over-Determined Linear Equations Systems by the Exchange Method*, 63 pages, June 1967. *****

68. STAN-CS-67-68 (PB176768), N. Wirth, *The PL 360 System*, 63 pages, June 1967. *****

69. STAN-CS-67-69 (PB176769), J. Feldman and D. Gries, *Translator Writing Systems*, 127 pages, June 1967. *****

70. STAN-CS-67-70 (AD655472), S. Bergman, J. G. Herriot and P. L. Richman, *On Computation of Flow Patterns of Compressible Fluids in the Transonic Region*, 77 pages, July 1977. *****

71. STAN-CS-67-71 (AD655230), M. A. Jenkins and J. F. Traub, *An Algorithm for an Automatic General Polynomial Solver*, 38 pages, July 1967. *****

72. STAN-CS-67-72 (PB175581), G. H. Golub and L. B. Smith, *Chebysev Approximation of Continuous Functions by a Chebyshev Systems of Functions*, 54 pages, July 1967. *****

73. STAN-CS-67-73 (AD662883), P. Businger and G. H. Golub, *Least Squares, Singular Values and Matrix Approximations (and* an ALGOL Procedure for Computing the Singular Value Decomposition), 12 pages, July 1967. *****

74. STAN-CS-67-74 (AD657639), G. E. Forsythe, *What is a Satisfactory Quadratic Equation Solver?*, 9 pages, August 1967. *****

75. STAN-CS-67-75 (PB175793), F. L. Bauer, *Theory of Norms*, 136 pages, August 1967. *****

76. STAN-CS-67-76 (AD657450), P. M. Anselone, *Collectively Compact Operator Approximations*, 60 pages, April 1967. *****

77. STAN-CS-67-77 (PB176770), G. E. Forsythe, *What To Do Till The Computer Scientist Comes*, 13 pages, September 1967. *****

78. STAN-CS-67-78 (PB176771), K. M. Colby and H. Enea, *Machine Utilization of the Natural Language Word 'Good'* , 8 pages, September 1967. *****

79. STAN-CS-67-79 (AD662884), R. W. Doran, *360 U.S. Fortran IV Free Field Input/Output Subroutine Package*, 21 pages, October 1967. *****

80. STAN-CS-67-80 (AD662902), J. Friedman, *Directed Random Generation of Sentences*, 30 pages, October 1967. *****

81. STAN-CS-67-81 (AD661217), G. H. Golub and J. H. Welsch, *Calculation of Gauss Quadrature Rules*, 28 pages, November 1967. *****

82. STAN-CS-67-82 (PB176775), L. Tesler, H. Enea and K. M. Colby, *A Directed Graph Representation for Computer Simulation of Belief Systems*, 31 pages, December 1967. *****

83. STAN-CS-68-83 (AD664237), A. Bjorck and G. H. Golub, *Iterative Refinements of Linear Squares Solutions by House-Holder Transformations*, 28 pages, January 1968. *****

84. STAN-CS-68-84 (AD692680), J. Friedman, *A Computer System for Transformational*

Grammar, 31 pages, January 1968. *****

85. STAN-CS-68-85 (PB177426), K. M. Colby, *Computer-Aided Language Development in Nonspeaking Mentally Disturbed Children*, 35 pages, December 1968. *****
86. STAN-CS-68-86 (PB179162), H. R. Bauer, S. Becker and S. L. Graham, *ALGOL With Programming*, 90 pages, January 1968. *****
87. STAN-CS-68-87 (PB178176), J. Ehrman, *CS 139 Lecture Notes Part 1, Sections 1 thru Preliminary Version*, 188 pages, 1968. *****
88. STAN-CS-68-88 (AD665672), S. Schechter, *Relaxation Methods for Convex Problems*, 19 pages, February 1968. *****
89. STAN-CS-68-89 (PB180920), H. R. Bauer, S. Becker and S. L. Graham, *ALGOL W (revised*), 42 pages, March 1968. *****
90. STAN-CS-68-90 (PB178177), V. R. Vesser, *A Multi-Level Computer Organization Designed to Separate Data Accessing from the Computation*, 20 pages, March 1968. *****
91. STAN-CS-68-91 (PB178114), N. Wirth, J. W. Wells, Jr. and E. H. Satterthwaite, Jr., *The PL360 System*, 89 pages, April 1968. *****
92. STAN-CS-68-92 (PB178078), H. Enea, *MLISP*, 18 pages, March 1968. *****
93. STAN-CS-68-93 (PB178078), G. E. Forsythe, *Computer Science and Education*, 50 pages, March 1968. *****
94. STAN-CS-68-94 (SLACR-84), A. C. Shaw (thesis), *The Formal Description and Parsing of Pictures*, 205 pages, April 1968. *****
95. STAN-CS-68-95 (not at NTIS), J. Friedman and R. W. Doran, *A Formal Syntax for Transformational Grammar*, 47 pages, March 1968. *****
96. STAN-CS-68-96 (AD673673), L. B. Smith, *Interval Arithmetic Determinant Evaluation and its Use in Testing for a Chebyshev System*, 26 pages, April 1968. *****
97. STAN-CS-68-97 (not at NTIS), W. F. Miller, *Research in the Computer Science Department at Stanford University*, 49 pages, April 1968. *****
98. STAN-CS-68-98 (PB179162), H. Bauer, S. Becker and S. Graham, *ALGOL With Implementation*, 147 pages, May 1968. *****
99. STAN-CS-68-99 (PB179057), J. Friedman, *Lecture Notes on Foundations for Computer Science*, 212 pages, June 1968. *****
100. STAN-CS-68-100 (PB178877), T. H. Bredt, *A Computer Model of Information Processing in Children*, 60 pages, June 1968. *****
101. STAN-CS-68-101 (AIM-60, AD672923), D. M. Kaplan (thesis), *The Formal Theoretic Analysis of Stront Equivalence for Elemental Programs*, 263 pages, June 1968. *****
102. STAN-CS-68-102 (AD677982), A. Pnueli, *Integer Programming Over a Cone*, 29 pages, July 1968. *****
103. STAN-CS-68-103 (AD692689), T. H. Bredt and J. Friedman, *Lexical Insertion in Transformational Grammar*, 47 pages, June 1968. *****
104. STAN-CS-68-104 (AD673010), R. Bartels, *A Numerical Investigation of the Simplex Method*, 122 pages, July 1968. *****
105. STAN-CS-68-105 (AD673674), P. Richman (thesis), *Epsilon-Calculus*, 138 pages, August 1968. *****
106. STAN-CS-68-106 (AIM-65, AD673971), B. Huberman (thesis), *A Program to Play Chess End Games*, 168 pages, August 1968. *****

107. STAN-CS-68-107 (AD668558), M. Jenkins, *A Three-Stage Variable-Shift Iteration for Polynomial Zeros and its Relation to Generalized Rayleigh Iteration*, 46 pages, August 1968. *****

108. STAN-CS-68-108 (AD692681), J. Friedman (editor), *Computer Experiments in Transformational Grammar*, 36 pages, August 1968. *****

109. STAN-CS-68-109 (AD692690), J. Friedman, *A Computer System for Writing and Testing Transformational Grammars - Final Report*, 14 pages, September 1968. *****

110. STAN-CS-68-110 (PB180920), H. Bauer, S. Becker, S. Graham, and E. Satterthwaite, *ALGOL W (revised*), 103 pages, October 1968. *****

111. STAN-CS-68-111 (AD692691), J. Friedman and T. Martner, *Analysis in Transformational Grammar*, 18 pages, August 1968. *****

112. STAN-CS-68-112 (AD692687), J. Friedman and B. Pollack, *A Control Language for Transformational Grammar*, 51 pages, August 1968. *****

113. STAN-CS-68-113 (PB188705), W. J. Hansen, *The Impact of Storage Management on Plex Processing Language Implementation*, 253 pages, July 1968. *****

114. STAN-CS-68-114 (PB182156), J. George, *Calgen, An Interactive Picture Calculus Generation System*, 75 pages, December 1968. *****

115. STAN-CS-68-115 (AD692686), J. Friedman, T. Bredt, R. Doran, T. Martner and B. Pollack, *Programmer's Manual for a Computer System for Transformational Grammar*, 199 pages, August 1968. *****

116. STAN-CS-68-116 (AIM-72, AD680036), D. Pieper (thesis), *The Kinematics of Manipulators Under Computer Control*, 157 pages, October 1968. *****

117. STAN-CS-68-117 (PB182151), D. Adams (thesis), *A Computational Model with Data Flow Sequencing*, 130 pages, December 1968. *****

118. STAN-CS-68-118 (AIM-74, AD681027), D. Waterman (thesis), *Machine Learning of Heuristics*, 235 pages, December 1968. *****

119. STAN-CS-68-119 (AD692681), G. Dantzig, et al., *Mathematical Programming Language*, 91 pages, May 1968. *****

120. STAN-CS-68-120 (PB182166), E. Satterthwaite, *Mutant 0.5: An Experimental Programming Language*, 60 pages, February 1968. *****

121. STAN-CS-69-121 (AD682978), C. B. Moler, *Accurate Bounds for the Eigenvalues of the Laplacian and Applications to Rhombical Domains*, 17 pages, February 1969. *****

122. STAN-CS-69-122 (AD687450), W. C. Mitchell and D. L. McCraith, *Heuristic Analysis of Numerical Variants of the Gram-Schmidt Orthonormalization Process*, 21 pages, February 1969. *****

123. STAN-CS-69-123 (AD696982), R. P. Brent, *Empirical Evidence for a Proposed Distribution of Small Prime Gaps*, 18 pages, February 1969. *****

124. STAN-CS-69-124 (AD687719), G. H. Golub, *Matrix Decompositions and Statistical Calculations*, 52 pages, March 1969. *****

125. STAN-CS-69-125 (AIM-89, AD692390), J. Feldman, J. Horning, J. Gips and S. Reder, *Grammatical Complexity and Inference*, 100 pages, June 1969. *****

126. STAN-CS-69-126 (AD702898), G. Dantzig, *Complementary Spanning Trees*, 10 pages, March 1969. *****

127. STAN-CS-69-127 (AIM-85, AD687720), P. Vicens (thesis), *Aspects of Speech Recognition by Computer*, 210 pages, April 1969. *****

128. STAN-CS-69-128 (AD687717), G. H. Golub, B. L. Buzbee and C. W. Nielson, *The Method of Odd/Even Reduction and Factorization with Application to Poisson's Equation*, 39 pages, April 1969. *****

129. STAN-CS-69-129 (not at NTIS), W. F. Miller, *Research in the Computer Science Department*, 82 pages, April 1969. *****

130. STAN-CS-69-130 (AIM-83, PB183907), R. C. Schank (thesis), *A Conceptual Dependency Representation for a Computer-Oriented Semantics*, 201 pages, March 1969. *****

131. STAN-CS-69-131 (SLAC-96), L. B. Smith (thesis), *The Use of Man- Machine Interaction in Data-Fitting Problems*, 287 pages, March 1969. *****

132. STAN-CS-69-132, Never Printed.

133. STAN-CS-69-133 (AD687718), G. H. Golub and C. Reinsch, *Handbook Series Linear Algebra: Singular Value Decompositions and Least Squares Solutions*, 38 pages, May 1969. *****

134. STAN-CS-69-134 (AD700923), G. H. Golub and M. A. Saunders, *Linear Least Squares and Quadratic Programming*, 38 pages, May 1969. *****

135. STAN-CS-69-135 (SLACR-102, not at NTIS), D. Gries, *Compiler Implementation Language*, 113 pages, May 1969. *****

136. STAN-CS-69-136 (SLACR-104, not at NTIS), I. Pohl (thesis), *Bi- Directional and Heuristic Search in Path Problems*, 157 pages, May 1969. *****

137. STAN-CS-69-137 (AD698801), P. Henrici, *Fixed Points of Analytic Functions*, 7 pages, July 1969. *****

138. STAN-CS-69-138 (AIM-96, AD696394), C. C. Green (thesis), *The Application of Theorem Proving to Question-Answering Systems*, 162 pages, June 1969. *****

139. STAN-CS-69-139 (AIM-98, AD695401), J. J. Horning (thesis), *A Study of Grammatical Inference*, 166 pages, August 1969. *****

140. STAN-CS-69-140 (AD698799), G. E. Forsythe, *Design - Then and Now*, 15 pages, September 1969. *****

141. STAN-CS-69-141 (PB188542), G. Dahlquist, S. C. Eisenstat and G. H. Golub, *Bounds for the Error of Linear Systems of Equations Using the Theory of Moments*, 26 pages, October 1969. *****

142. STAN-CS-69-142, G. H. Golub and R. Underwood, *Stationary Values of the Ratio of Quadratic Forms Subject to Linear Constraints*, 22 pages, November 1969. *****

143. STAN-CS-69-143 (AD694464), M. A. Jenkins (thesis), *Three-Stage Variable-Shift for the Solution of Polynomial Equations with a Posteriori Error Bounds for the Zeros* (has also been printed incorrectly as STAN-CS-69-138), 199 pages, August 1969. *****

144. STAN-CS-69-144 (AD698800), G. E. Forsythe, *The Maximum and Minimum of a Positive Definite Quadratic Polynomial on a Sphere are Convex Functions of the Radius*, 9 pages, July 1969. *****

145. STAN-CS-69-145 (AD698798), P. Henrici, *Methods of Search for Solving Polynomial Equations*, 25 pages, December 1969. *****

146. STAN-CS-70-146 (not at NTIS), G. O. Ramos (thesis), *Roundoff Error Analysis of the Fast Fourier Transform*, 49 pages, February 1970. *****

147. STAN-CS-70-147 (AD699897), G. E. Forsythe, *Pitfalls in Computation, or Why a Math Book Isn't Enough*, 43 pages, January 1970. *****

148. STAN-CS-70-148 (PB188749), D. E. Knuth and R. W. Floyd, *Notes on Avoiding 'GO TO'*

Statements, 15 pages, January 1970. *****

149. STAN-CS-70-149 (PB188748), D. E. Knuth, *Optimum Binary Search Trees*, 19 pages, January 1970. *****

150. STAN-CS-70-150 (AD699898), J. H. Wilkinson, *Elementary Proof of the Wielandt-Hoffman Theorem and of its Generalization*, 8 pages, January 1970. *****

151. STAN-CS-70-151 (not at NTIS), E. A. Volkov (translated by G. E. Forsythe), *On the Properties of the Derivatives of the Solution of Laplace's Equation and the Errors of the Method of Finite Differences for Boundary Values in C(2* and C(1,1)), 26 pages, January 1970. $10.00 **H** *Check for availability before ordering.*

152. STAN-CS-70-152 (not at NTIS), S. Gustafson, *Rapid Computation of Interpolation Formulae and Mechanical Quadrature Rules*, 23 pages, February 1970. *****

153. STAN-CS-70-153 (AD701358), S. Gustafson, *Error Propagation by Use of Interpolation Formulae and Quadrature Rules which are Computed Numerically*, 17 pages, February 1970. *****

154. STAN-CS-70-154, H. S. Stone, *The Spectrum of Incorrectly Decoded Bursts for Cyclic Error Codes*, 24 pages, February 1970. *****

155. STAN-CS-70-155 (AD705508), B. L. Buzbee, G. H. Golub and C. W. Nielson, *The Method of Odd/Even Reduction and Factorization with Application to Poisson's Equation, Part II*, 36 pages, March 1970. *****

156. STAN-CS-70-156 (AD713972), G. B. Dantzig, *On a Model for Computing Roundoff Error of a Sum*, 30 pages, October 1979. *****

157. STAN-CS-70-157 (AD705509), R. P. Brent, *Algorithms for Matrix Multiplication*, 54 pages, March 1970. *****

158. STAN-CS-70-158, H. Stone, *Parallel Processing with the Perfect Shuffle*, 36 pages, March 1970. *****

159. STAN-CS-70-159 (AD708690), J. A. George, *The Use of Direct Methods for the Solution of the Discrete Poisson Equation on Non-Rectangular Regions*, 2 pages, June 1970. *****

160. STAN-CS-70-160 (CSL-TR-5, AD707762), T. H. Bredt and E. McCluskey, *A Model for Parallel Computer Systems*, 62 pages, April 1970. *****

161. STAN-CS-70-161 (SLACR-117, not at NTIS), L. J. Hoffman (thesis), *The Formulary Model for Access Control and Privacy in Computer Systems*, 81 pages, May 1970. *****

162. STAN-CS-70-162 (SLACP-760, AD709564), R. H. Bartels, G. H. Golub and M. A. Saunders, *Numerical Techniques in Mathematical Programming*, 61 pages, May 1970. *****

163. STAN-CS-70-163 (AD708691), H. Malcolm, *An Algorithm for Floating- Point Accumulation of Sums with Small Relative Error*, 22 pages, June 1970. *****

164. STAN-CS-70-164 (AD708692), V. I. Gordonova (translated by L. Kaufman), *Estimates of the Roundoff Error in the Solution of a System of Conditional Equations, by V. I. Gordonova*, 16 pages, June 1970. *****

165. STAN-CS-70-165, H. Bauer and H. Stone, *The Scheduling of N Tasks with M Operations on Two Processors*, 34 pages, July 1970. *****

166. STAN-CS-70-166 (AIM-128, AD713841), E. J. Sandewall, *Representing Natural-Language Information in Predicate Calculus*, 27 pages, July 1970. *****

167. STAN-CS-70-167 (AIM-129, AD712460), S. Igarashi, *Semantics of ALGOL- Like Statements*, 95 pages, June 1970. *****

168. STAN-CS-70-168 (AIM-130, AD713252), M. Kelly (thesis), *Visual Identification of People by Computer*, 138 pages, July 1970. *****

169. STAN-CS-70-169 (AIM-126, AD711329), D. E. Knuth, *Examples of Formal Semantics*, 35 pages, August 1970. *****

170. STAN-CS-70-170 (CSL-TR-6, AD711334), T. Bredt, *Analysis and Synthesis of Concurrent Sequential Programs*, 50 pages, May 1970. *****

171. STAN-CS-70-171 (CSL-TR-8, AD714202), T. Bredt, *A Survey of Models for Parallel Computing*, 58 pages, August 1970. *****

172. STAN-CS-70-172 (CSL-TR-7, AD714180), T. Bredt, *Analysis of Parallel Systems*, 59 pages, August 1970. *****

173. STAN-CS-70-173 (CSL-TR-9, AD714181), T. Bredt, *The Mutual Exclusion Problem*, 68 pages, August 1970. *****

174. STAN-CS-70-174 (AIM-127, AD711395), Z. Manna and R. Waldinger, *Towards Automatic Program Synthesis*, 55 pages, August 1970. *****

175. STAN-CS-70-175 (AD713842), M. Malcolm, *A Description and Subroutines for Computing Euclidean Inner Products on the IBM 360*, 14 pages, October 1970. *****

176. STAN-CS-70-176 (AIM-131, AD715128), E. A. Feigenbaum, B. G. Buchanan and J. Lederberg, *On Generality and Problem Solving: A Case Study Using the DENDRAL Program*, 48 pages, September 1970. *****

177. STAN-CS-70-177 (AD715511), R. W. Floyd and D. E. Knuth, *The Bose- Nelson Sorting Problem*, 16 pages, October 1970. *****

178. STAN-CS-70-178 (not at NTIS), G. E. Forsythe and W. F. Miller, *Research Review*, 186 pages, October 1970. *****

179. STAN-CS-70-179 (AIM-135, AD716566), D. C. Smith, *MLISP*, 99 pages, October 1970. *****

180. STAN-CS-70-180 (AIM-132, AD715665), G. Falk (thesis), *Computer Interpretation of Imperfect Line Data as a Three-Dimensional Scene*, 187 pages, October 1970. *****

181. STAN-CS-70-181 (AIM-133), A. C. Hearn, *Reduce 2 - User's Manual*, 85 pages, October 1970. *****

182. STAN-CS-70-182 (AIM-134, AD748565), J. Tenenbaum (thesis), *Accommodation in Computer Vision*, 452 pages, September 1970. *****

183. STAN-CS-70-183 (AIM-136, AD717600), G. M. White, *Machine Learning Through Signature Trees...Application to Human Speech*, 40 pages, October 1970. *****

184. STAN-CS-70-184 (AD715512), M. Malcolm, *A Note on a Conjecture of J. Mordell*, 5 pages, October 1970. *****

185. STAN-CS-70-185 (TID22593), E. Nelson, *Graph Program Simulation*, 175 pages, October 1970. *****

186. STAN-CS-70-186 (AIM-137, AD715513), D. E. Knuth, *An Empirical Study of Fortran Programs*, 50 pages, November 1970. *****

187. STAN-CS-70-187 (AD197154), G. Dantzig et al., *Mathematical Programming Language (MPL* Specification Manual for Committee Review), 82 pages, December 1970. *****

188. STAN-CS-70-188 (AIM-138, PB197161), E. Ashcroft and Z. Manna, *The Translation of 'Go To' Programs to 'While' Programs*, 28 pages, December 1970. *****

189. STAN-CS-70-189 (AIM-139, AD717601), Z. Manna, *Mathematical Theory of Partial Correctness*, 24 pages, December 1970. *****

190. STAN-CS-70-190 (AD719398), J. Hopcroft, *An N Log N Algorithm for Minimizing States in a Finite Automaton*, 12 pages, December 1970. *

191. STAN-CS-70-191 (SLACP-904, PB198494), V. Lesser, *An Introduction to the Direct Emulation of Control Structures by a Parallel Micro- Computer*, 26 pages, December 1970. *

192. STAN-CS-70-192 (AD719399), J. Hopcroft, *An N Log N Algorithm for Isomorphism of Planar Triply Connected Graphs*, 6 pages, December 1970. *

193. STAN-CS-70-193 (AIM-140, not at NTIS), R. Schank, *Intention, Memory and Computer Understanding*, 59 pages, December 1970. *

194. STAN-CS-70-194 (PB198495), D. E. Knuth, *The Art of Computer Programming - Errata et Addenda*, 28 pages, December 1970. *

195. STAN-CS-70-195 (723871), B. L. Buzbee, F. W. Dorr, A. George, and G. H. Golub, *The Direct Solution of the Discrete Poisson Equation on Irregular Regions*, 30 pages, December 1970. *

196. STAN-CS-70-196 (AD725167), C. B. Moler, *Matrix Computations with Fortran and Paging*, 13 pages, December 1970. *

197. STAN-CS-71-197 (not at NTIS), D. E. Knuth and R. L. Sites, *Mix/360 User's Guide*, 11 pages, January 1971. *

198. STAN-CS-71-198 (AD726170), R. Brent (thesis), *Algorithms for Finding Zeros and Extrema of Functions without Calculating Derivatives*, 250 pages, February 1971. *

199. STAN-CS-71-199 (PB198415), Staff, *Bibliography of Stanford Computer Science Reports 1963-1971*, 28 pages, February 1971. *

200. STAN-CS-71-200 (PB198416), J. G. Herriot and C. H. Peinsch, *ALGOL 60 Procedures for the Calculation of Interpolating Natural Spline Functions*, 30 pages, February 1971. *

201. STAN-CS-71-201 (AD722434), J. Hopcroft and R. Tarjan, *Planarity Testing in V Log V Steps: Extended Abstracts*, 18 pages, February 1971. *

202. STAN-CS-71-202 (SLAC-117, not at NTIS), H. J. Saal and W. Riddle, *Communicating Semaphores*, 21 pages, February 1971. *

203. STAN-CS-71-203 (AIM-141, AD730506), B. G. Buchanan, E. A. Feigenbaum, and J. Lederberg, *The Heuristic DENDRAL Program for Explaining Empirical Data*, 20 pages, February 1971. *

204. STAN-CS-71-204 (PB198510), D. Ingalls, *FETE - a Fortran Execution Time Estimator*, 12 pages, February 1971. *

205. STAN-CS-71-205 (AIM-142, AD731383), Robin Milner, *An Algebraic Definition of Simulation Between Programs*, 20 pages, March 1971. *

206. STAN-CS-71-206 (AD726158), D. E. Knuth, *Mathematical Analysis of Algorithms*, 26 pages, March 1971. *

207. STAN-CS-71-207 (AD726169), J. Hopcroft and R. Tarjan, *Efficient Algorithms for Graph Manipulation*, 19 pages, March 1971. *

208. STAN-CS-71-208 (AD726171), J. A. George (thesis), *Computer Implementation of the Finite Element Method*, 220 pages, March 1971. *

209. STAN-CS-71-209 (AIM-143, AD724867), J. McCarthy and Staff, *Project Technical Report*, 80 pages, March 1971. *

210. STAN-CS-71-210 (PB201917), J. Gerry Purdy, *Access - a Program for the Catalog and Access of Information*, 28 pages, March 1971. *

211. STAN-CS-71-211 (AD727104), M. Malcolm, *An Algorithm to Reveal Properties of Floating-Point Arithmetic*, 8 pages, March 1971. *****

212. STAN-CS-71-212 (AD727107), M. A. Morgana, *Time and Memory Requirements for Solving Linear Systems*, 7 pages, March 1971. *****

213. STAN-CS-71-213 (PB201629), R. Tarjan, *The Switchyard Problem: Sorting Using Networks of Queues and Stacks*, 13 pages, April 1971. *****

214. STAN-CS-71-214 (AD727108), R. L. Graham, D. E. Knuth and T. S. Motzkin, *Complements and Transitive Closures*, 6 pages, April 1971. *****

215. STAN-CS-71-215 (AD727115), M. Malcolm, *PL360 (Revised* **-** a Programming Language for the IBM 360), 91 pages, May 1971. *****

216. STAN-CS-71-216 (AIM-147, AD732457), R. E. Kling, *Reasoning by Analogy with Applications to Heuristics Problem Solving: a Case Study*, 180 pages, May 1971. *****

217. STAN-CS-71-217 (AIM-148, AD731730), E. A. Ashcroft, Z. Manna and A. Pnueli, *Decidable Properties of Monadic Functional Schemas*, 9 pages, May 1971. *****

218. STAN-CS-71-218 (AD731038), N. G. Debruijn, D. E. Knuth and S. O. Rice, *The Average Height of Plane Trees*, 7 pages, May 1971. *****

219. STAN-CS-71-219 (AIM-144, not at NTIS), Lynn Quam (thesis), *Computer Comparison of Pictures*, 120 pages, May 1971. *****

220. STAN-CS-71-220 (CSL-14, AD727116), Harold Stone, *Dynamic Memories with Enhanced Data Access*, 32 pages, February 1971. *****

221. STAN-CS-71-221 (AIM-145, AD731729), B. G. Buchanan, E. Feigenbaum and J. Lederberg, *A Heuristic Programming Study of Theory Formation in Science*, 41 pages, June 1971. *****

222. STAN-CS-71-222 (PB235417/AS), W. J. Meyers (thesis), *Linear Representation of Tree Structure (a Mathematical Theory of Parenthesis-Free Notations*), 245 pages, June 1971. *****

223. STAN-CS-71-223 (PB203429), Susan Graham (thesis), *Precedence Languages and Bounded Right Context Languages*, 192 pages, July 1971. *****

224. STAN-CS-71-224 (AIM-146, PB212183), A. Ershov, *Parallel Programming*, 15 pages, July 1971. *****

225. STAN-CS-71-225 (PB203344), Ake Bjorck and Gene H. Golub, *Numerical Methods for Computing Angles Between Linear Subspaces*, 30 pages, July 1971. *****

226. STAN-CS-71-226 (SLAC-133), J. E. George, *SIMPLE - A Simple Precedence Translator Writing System*, 92 pages, July 1971. *****

227. STAN-CS-71-227 (SLAC-134), J. E. George (thesis), *GEMS - A Graphical Experimental Meta System*, 184 pages, July 1971. *****

228. STAN-CS-71-228 (PB203343), Linda Kaufman, *Function Minimization and Automatic Therapeutic Control*, 30 pages, July 1971. *****

229. STAN-CS-71-229 (AD732766), E. H. Lee and G. E. Forsythe, *Variational Study of Nonlinear Spline Curves*, 22 pages, August 1971. *****

230. STAN-CS-71-230 (PB203601), R. L. Sites, *ALGOL With Reference Manual*, 141 pages, August 1971. *****

231. STAN-CS-71-231 (AIM-149, AD732644), Rod Schmidt (thesis), *A Study of the Real-Time Control of a Computer Driven Vehicle*, 180 pages, August 1971. *****

232. STAN-CS-71-232 (AD733073), C. B. Moler and G. W. Stewart, *An Algorithm for the*

Generalized Matrix Eigenvalue Problem, 50 pages, August 1971. *

233. STAN-CS-71-233 (not at NTIS), Wayne Wilner, *Declarative Semantic Definition*, 211 pages, August 1971. *

234. STAN-CS-71-234 (not at NTIS), Gene H. Golub, *Some Modified Eigenvalue Problems*, 38 pages, September 1971. *

235. STAN-CS-71-235 (AIM-150, not at NTIS), R. W. Floyd, *Toward Iterative Design of Correct Programs*, 12 pages, September 1971. *

236. STAN-CS-71-236 (AD737648), G. H. Golub and George Styan, *Numerical Computation for Univeariate Linear Models*, 35 pages, September 1971. *

237. STAN-CS-71-237 (CSL-TR-16, AD737270), D. C. Van Voorhis, *A Generalization of the Divide-Sort-Merge Strategy for Sorting Networks*, 67 pages, September 1971. *

238. STAN-CS-71-238 (CSL-TR-17, AD735901), D. C. Van Voorhis, *A Lower Bound for Sorting Networks That Use the Divide-Sort-Merge Strategy*, 13 pages, September 1971. *

239. STAN-CS-71-239 (CSL-TR-18, AD736610), D. C. Van Voorhis, *Large [g.d.] Sorting Networks*, 84 pages, September 1971. *

240. STAN-CS-71-240 (AIM-151, AD738568), Ralph London, *Correctness of Two Compilers for a LISP Subset*, 42 pages, October 1971. *

241. STAN-CS-71-241 (AIM-152, AD732642), Alan Bierman, *On the Inference of Turing Machines from Sample Computations*, 31 pages, October 1971. *

242. STAN-CS-71-242 (AIM-153, AD738569), Patrick Hayes, *The Frame Problem and Related Problems in AI*, 24 pages, November 1971. *

243. STAN-CS-71-243 (AIM-154, AD738570), Z. Manna, S. Ness and J. Vuillemin, *Inductive Methods for Proving Properties of Programs*, 24 pages, November 1971. *

244. STAN-CS-71-244 (AD738027), R. Tarjan (thesis), *An Efficient Planarity Algorithm*, 154 pages, November 1971. *

245. STAN-CS-71-245 (AIM-155, not at NTIS), John Ryder (thesis), *Heuristic Analysis of Large Trees as Generated in the Game of Go*, 350 pages, November 1971. *

246. STAN-CS-71-246 (AIM-156, AD740141), Ken Colby, S. Weber, Frank Hilf and H. Kraemer, *A Resemblance Test for the Validation of a Computer Simulation of Paranoid Processing*, 30 pages, November 1971. *

247. STAN-CS-71-247 (AIM-157, not at NTIS), Yorick Wilks, *On Small Head -- Some Remarks on the Use of 'Model' in Linguistics*, 16 pages, December 1971. *

248. STAN-CS-71-248 (AD739335), Michael Fredman and Donald Knuth, *Recurrence Relations Based on Minimization*, 35 pages, December 1971. *

249. STAN-CS-71-249 (not at NTIS), Bary Pollack, *An Annotated Bibliography on the Construction of Compilers*, 140 pages, December 1971. *

250. STAN-CS-71-250 (AIM-158, AD740127), Ashok K. Chandra and Zohar Manna, *Program Schemas with Equality*, 13 pages, December 1971. *

251. STAN-CS-72-251 (CSL-TR-19, AD736814), Harold Stone, *An Efficient Parallel Algorithm for the Solution of a Tridiagonal Linear System of Equation*, 24 pages, January 1972. *

252. STAN-CS-72-252 (SU326 P30 14), M. A. Saunders, *Large-Scale Linear Programming Using the Cholesky Factorization*, 40 pages, January 1972. *

253. STAN-CS-72-253 (AIM-159, not at NTIS), J. A. Feldman and P. C. Shields, *Total Complexity and the Inference of Best Programs*, 41 pages, January 1972. *

254. STAN-CS-72-254 (AD740330), G. E. Forsythe, *Von Neumann's Comparison Method for Random Sampling from the Normal and Other Distributions*, 19 pages, January 1972. *

255. STAN-CS-72-255 (AIM-160, AD740140), J. A. Feldman, *Automatic Programming*, 20 pages, January 1972. *

256. STAN-CS-72-256 (AD740331), V. Chvatal, *Edmonds Polyhedra and Weakly Hamiltonian Graphs*, 22 pages, January 1972. *

257. STAN-CS-72-257 (PB208519), N. Wirth, *On Pascal, Code Generation, and the CDC 6000 Computer*, 39 pages, February 1972. *

258. STAN-CS-72-258 (AD740332), Harold Brown, *Some Basic Machine Algorithms for Integral Order Computations*, 15 pages, February 1972. *

259. STAN-CS-72-259 (PB208595), Clark A. Crane (thesis), *Linear Lists and Priority Queues as Balanced Binary Trees*, 131 pages, February 1972. *

260. STAN-CS-72-260 (AD740110), Vaughan R. Pratt (thesis), *Shellsort and Sorting Networks*, 59 pages, February 1972. *

261. STAN-CS-72-261 (SU326 P30 15), Gene H. Golub and Victor Pereyra, *The Differentiation of Pseudoinverses and Nonlinear Least Squares Whose Variables Separate*, 35 pages, February 1972. *

262. STAN-CS-72-262 (PB209357), Staff, *Bibliography*, 36 pages, February 1972. *

263. STAN-CS-72-263 (AD741189), David A. Klarner and Ronald L. Rivest, *A Procedure for Improving the Upper Bound for the Number of n-Ominoes*, 31 pages, February 1972. *

264. STAN-CS-72-264 (AIM-161, AD741189), Yorick Wilks, *Artificial Intelligence Approach to Machine Translation*, 42 pages, February 1972. *

265. STAN-CS-72-265 (AIM-162, AD744634), Neil Goldman, Roger Shank, Chuck Rieger and Chris Riesbeck, *Primitive Concepts Underlying Verbs of Thought*, 80 pages, February 1972. *

266. STAN-CS-72-266 (AIM-163, not at NTIS), Jean Cadiou (thesis), *Recursive Definitions of Partial and Functions and Their Computation*, 160 pages, March 1972. *

267. STAN-CS-72-267 (PB209629), Pierre E. Bonzon, *MPL (An Appraisal Based on Practical Experiment*), 26 pages, March 1972. *

268. STAN-CS-72-268 (AD742348), V. Chvatal, *Degrees and Matchings*, 16 pages, March 1972. *

269. STAN-CS-72-269 (AD742747), David Klarner and R. Rado, *Arithmetic Properties of Certain Recursively Defined Sets*, 30 pages, March 1972. *

270. STAN-CS-72-270 (PB209616), G. H. Golub, J. H. Wilkinson and R. Underwood, *The Lanczos Algorithm for the Symmetric Ax = i Bx Problem*, 21 pages, March 1972. *

271. STAN-CS-72-271 (not at NTIS), William E. Riddle (thesis), *The Modeling and Analysis of Supervisory Systems*, 174 pages, March 1972. *

272. STAN-CS-72-272 (A7IM-164, AD742748), Zohar Manna and J. Vuillemin, *Fixedpoint Approach to the Theory of Computation*, 25 pages, March 1972. *

273. STAN-CS-72-273 (PB209806), V. Chvatal and J. Sichler, *Chromatic Automorphisms of Graphs*, 12 pages, March 1972. *

274. STAN-CS-72-274 (AD742749), D. Klarner and Richard Rado, *Linear Combinations of Sets of Consecutive Integers*, 12 pages, March 1972.endpubdate *

275. STAN-CS-72-275 (AD742750), David A. Klarner, *Sets Generated by Iteration of a Linear*

Operation, 16 pages, March 1972. *****

276. STAN-CS-72-276 (AD745022), Linda Kaufman (thesis), *A Generalized LR Method to Solve Ax = Bx*, 70 pages, April 1972. *****

277. STAN-CS-72-277 (SLAC-149, not at NTIS), C. T. Zahn, *Region Boundaries on a Triangular Grid*, 40 pages, April 1972. *****

278. STAN-CS-72-278 (SU326 P30-17), Paul Concus and Gene H. Golub, *Use of Fast Direct Methods for the Efficient Numerical Solution of Nonseparable Elliptic Equations*, April 1972. *****

279. STAN-CS-72-279 (AD744313), Michael Osborne, *Topics in Optimization*, 143 pages, April 1972. *****

280. STAN-CS-72-280 (AIM-165, AD742751), D. A. Bochvar, *Two Papers on Partial Predicate Calculus*, 99 pages, April 1972. *****

281. STAN-CS-72-281 (AIM-166, AD743598), Lynn Quam, Sydney Liebes, Robert Tucker, Marsha Jo Hanna and Botond Eross, *Computer Interactive Picture Processing*, 41 pages, April 1972. *****

282. STAN-CS-72-282 (AIM-167, AD747254), Ashok K. Chandra, *Efficient Compilation of Linear Recursive Programs*, 40 pages, April 1972. *****

283. STAN-CS-72-283 (not at NTIS), David R. Stoutemyer (thesis), *Numerical Implemenirrtation of the Schwarz Alternating Procedure for Elliptic Partial Differential Equations*, 131 pages, May 1972. *****

284. STAN-CS-72-284 (O.R. 72-6, AD745778), V. Chvatal, *Edmonds Polyhedra and a Hierarchy of Combinatorial Problems*, 49 pages, May 1972. *****

285. STAN-CS-72-285 (PB210910), Robert Floyd and Alan J. Smith, *A Linear Time Two Tape Merge*, 16 pages, May 1972. *****

286. STAN-CS-72-286 (PB211036), Ashok K. Chandra, *On the Solution of Moser's Problem in 4 Dimensions, and Related Issues*, 32 pages, May 1972. *****

287. STAN-CS-72-287 (AIM-168, AD746146), Shigaru Igarashi, *Admissibility of Fixed-Point Induction in First-Order Logic of Typed Theories*, 36 pages, May 1972. *****

288. STAN-CS-72-288 (AIM-169, not at NTIS), Robin Milner, *Logic for Computable Functions: Description of a Machine Implementation*, 36 pages, May 1972. *****

289. STAN-CS-72-289 (AIM-170, AD748607), Yorick Wilks, *Lakoff on Linguistics and Natural Logic*, 20 pages, June 1972. *****

290. STAN-CS-72-290 (AIM-171, AD746147), Roger Schank, *Adverbs and Beliefs*, 30 pages, June 1972. *****

291. STAN-CS-72-291 (AD746189), Donald E. Knuth, *Some Combinatorial Lemmas*, 21 pages, June 1972. *****

292. STAN-CS-72-292 (AD746150), V. Chvatal, D. A. Klarner and D. E. Knuth, *Selected Combinatorial Research Problems*, 31 pages, June 1972. *****

293. STAN-CS-72-293 (CSL-TN-32, PB212234), J. A. Lukes (thesis), *Combinatorial Solutions to Partitioning Problems*, 130 pages, June 1972. *****

294. STAN-CS-72-294 (SLACP-1072), Harry J. Saal and Leonard J. Shustek, *Microprogrammed Implementation of Computer Measurement Techniques*, 20 pages, June 1972. *****

295. STAN-CS-72-295 (PB212130), C. C. Paige, *Bidiagonalization of Matrices and Solution of Linear Equations*, 27 pages, June 1972. *****

296. STAN-CS-72-296 (AD748606), Michael L. Fredman (thesis), *Growth Properties of a Class of Recursively Defined Functions*, 84 pages, June 1972. *****

297. STAN-CS-72-297 (PB212300), C. C. Paige, *An Error Analysis of a Method for Solving Matrix Equations*, 13 pages, June 1972. *****

298. STAN-CS-72-298 (CSL-TR-25), P. M. Kogge and H. S. Stone, *A Parallel Algorithm for the Efficient Solution of a General Class of Recurrence Equations*, 33 pages, July 1972. *****

299. STAN-CS-72-299 (AIM-172, AD752801), Sylvia Weber Russell, *Semantic Categories of Nominals for Conceptual Dependency Analysis of Natural Language*, 67 pages, July 1972. *****

300. STAN-CS-72-300 (CSL-TN-17, AD749848), Marc T. Kaufman, *Counterexample of a Conjecture of Fujii, Kasami and Ninomiya*, 5 pages, July 1972. *****

301. STAN-CS-72-301 (SU326 P30-21), Michael A. Saunders, *Product Form of the Cholesky Factorization for Large-Scale Linear Programming*, 35 pages, July 1972. *****

302. STAN-CS-72-302 (SU326 P30-19), G. H. Golub, *Some Uses of the Lanczos Algorithm in Numerical Linear Algebra*, 23 pages, August 1972. *****

303. STAN-CS-72-303 (AIM-174, PB212827), F. Lockwood Morris (thesis), *Correctness of Translations of Programming Languages - an Algebraic Approach*, 125 pages, August 1972. *****

304. STAN-CS-72-304 (SU326 P30-20), R. S. Anderssen and G. H. Golub, *Richardson's Non-Stationary Matrix Iterative Procedure*, 76 pages, August 1972. *****

305. STAN-CS-72-305 (AIM-173, AD755139), Gerald Agin (thesis), *Representation and Description of Curved Objects*, 125 pages, August 1972. *****

306. STAN-CS-72-306 (SU326 P23-X-2), Bary W. Pollack, *A Bibliography on Computer Graphics*, 145 pages, August 1972. *****

307. STAN-CS-72-307 (AIM-175, not at NTIS), Hozumi Tanaka, *Hadamard Transform for Speech Wave Analysis*, 32 pages, August 1972. *****

308. STAN-CS-72-308 (AIM-176, AD754109), J. A. Feldman, J. R. Low, R. H. Taylor and D. C. Swinehart, *Recent Development in SAIL - an ALGOL Based Language for Artificial Intelligence*, 22 pages, August 1972. *****

309. STAN-CS-72-309 V. Lesser (thesis), *Dynamic Control Structures and Their Use in Emulation*, 251 pages, August 1972. *****

310. STAN-CS-72-310 (CSL-TR-34, AD750671), Marc T. Kaufman, *Anomalies in Scheduling Unit-Time Tasks*, 22 pages, September 1972. *****

311. STAN-CS-72-311 (AIM-177, not at NTIS), Richard Paul (thesis), *Modelling, Trajectory Calculation and Serving of a Computer Controlled Arm*, September 1972. *****

312. STAN-CS-72-312 (AIM-178, AD754108), Ahron Gill, *Visual Feedback and Related Problems in Computer Controlled Hand-Eye Coordination*, 134 pages, September 1972. *****

313. STAN-CS-72-313 (PB218353/1), Staff, *Bibliography of Computer Science Reports*, 42 pages, September 1972. *****

314. STAN-CS-72-314 (CSL-TR-43, PB212893), Peter M. Kogge (Thesis, Part I), *Parallel Algorithms for the Efficient Solution of Recurrence Problems*, 74 pages, September 1972. *****

315. STAN-CS-72-315 (CSL-TR-44, PB212894), Peter M. Kogge (Thesis, Part II), *The Numerical Stability of Parallel Algorithms for Solving Recurrence Problems*, 49 pages, September 1972. *****

316. STAN-CS-72-316 (CSL-TR-45, PB212828), Peter M. Kogge (Thesis, Part III), *Minimal Parallelism in the Solution of Recurrence Problems*, 45 pages, September 1972. *****

317. STAN-CS-72-317 (CSL-TR-26, AD750672), S. H. Fuller and F. Baskett, *An Analysis of Drum Storage Units*, 69 pages, October 1972. *****

318. STAN-CS-72-318 (AD755140), H. Brown, L. Masinter and L. Hjelmeland, *Constructive Graph Labeling Using Double Cosets*, 50 pages, October 1972. *****

319. STAN-CS-72-319 (SU326 P30-22), Gene H. Golub and James M. Varah, *On a Characterization of the Best 1 2 Scaling of a Matrix*, 14 pages, October 1972. *****

320. STAN-CS-72-320 (AIM-179), Bruce G. Baumgart, *Winged Edge Polyhedra Repres entation*, 46 pages, October 1972. *****

321. STAN-CS-72-321 (AIM-180, AD759712), Ruzena Bajcsy (thesis), *Computer Identification of Textured Visual Scenes*, 156 pages, October 1972. *****

322. STAN-CS-72-322 (SU326 P30-23), P. E. Gill, G. H. Golub, W. Murray and M. A. Saunders, *Methods for Modifying Matrix Factorizations*, 62 pages, November 1972. *****

323. STAN-CS-72-323, Michael A. Malcolm and John Palmer, *A Fast Method for Solving a Class of Tri-Diagonal Linear Systems* (also listed on the abstract as *On the Lu Decomposition of Toeplitz Matrices*), 11 pages, November 1972. *****

324. STAN-CS-72-324 (CSL-TR-48, PB214612), Henry R. Bauer, III (thesis), *Subproblems of the m* x *n Sequencing Problem*, 115 pages, November 1972. *****

325. STAN-CS-72-325 (AIM-181), Bruce G. Buchanan, *Review of Hubert Dreyfus' What Computers Can't Do: A Critique of Artificial Reason*, 14 pages, November 1972. *****

326. STAN-CS-72-326 (AIM-182, AD754107), Kenneth Mark Colby and Franklin Dennis Hilf, *Can Expert Judges, Using Transcripts of Teletyped Psychiatric Interviews, Distinguish Human Paranoid Patients from a Computer Simulation of Paranoid Processes?*, 12 pages, December 1972. *****

327. STAN-CS-72-327 (AD755138), David A. Klarner and Ronald L. Rivest, *Asymptotic Bounds for the Number of Convex n-Ominoes*, 15 pages, December 1972. *****

328. STAN-CS-72-328 (CSL-TR-31, PB218929), Harold Gabow, *An Efficient Implementation of Edmonds' Maximum Matching Algorithm*, 68 pages, December 1972. *****

329. STAN-CS-72-329 (PB218875), Isu Fang (thesis), *Folds, A Declarative Formal Language Definition System*, 290 pages, December 1972. *****

330. STAN-CS-73-330 (AIM-184, AD758651), Malcolm Newey, *Axioms and Theorems for Integers, Lists and Finite Sets in LCF*, 53 pages, January 1973. *****

331. STAN-CS-73-331 (AIM-187, AD757364), George Collins, *The Computing Time of the Euclidian Algorithm*, 17 pages, January 1973. *****

332. STAN-CS-73-332 (AIM-186, AD758645), Robin Milner, *Models of LCF*, 17 pages, January 1973. *****

333. STAN-CS-73-333 (AIM-185, AD757367), Zohar Manna and Ashok Chandra, *On the Power of Programming Features*, 29 pages, January 1973. *****

334. STAN-CS-73-334 (AD757366), Michael A. Malcolm and Cleve B. Moler, *URAND, A Universal Random Number Generator*, 10 pages, January 1973. *****

335. STAN-CS-73-335 (SU326 P30-24), G. Golub and E. Seneta, *Computation of the Stationary Distribution of an Infinite Markov Matrix*, 12 pages, January 1973. *****

336. STAN-CS-73-336 (AIM-188, AD758646), Ashok K. Chandra (thesis), *On the Properties and Applications of Program Schemas*, 225 pages, January 1973. *****

337. STAN-CS-73-337 (AIM-189, PB218682), James Gips and George Stiny *Aesthetics Systems*, 22 pages, January 1973. *****

338. STAN-CS-73-338 (AD759713), David A. Klarner, *A Finite Basis Theorem Revisited*, 10 pages, February 1973. *****

339. STAN-CS-73-339 (SU326 P30-25), Gene H. Golub and Warren Dent, *Computation of the Limited Information Maximum Likelihood Estimator*, 27 pages, February 1973. *****

340. STAN-CS-73-340 (AIM-190, AD759714), Malcolm Newey, *Notes on a Problem Involving Permutations as Subsequences*, 20 pages, March 1973. *****

341. STAN-CS-73-341 (AIM-191, AD764272), Shmuel Katz and Zohar Manna, *A Heuristic Approach to Program Verification*, 40 pages, March 1973. *****

342. STAN-CS-73-342 (AD759715), Donald Knuth, *Matroid Partitioning*, 12 pages, March 1973. *****

343. STAN-CS-73-343 (not at NTIS), David R. Levine (thesis), *Computer- Based Analytic Grading for German Grammar Instruction*, 220 pages, March 1973. *****

344. STAN-CS-73-344 (AIM-183, AD759716), Roger C. Schank, *The Fourteen Primitive Actions and Their Inferences*, 71 pages, March 1973. *****

345. STAN-CS-73-345 (AIM-192, not at NTIS), George Collins and Ellis Horowitz, *The Minimum Root Separation of a Polynomial*, 25 pages, April 1973. *****

346. STAN-CS-73-346 (AIM-193, AD759717), Kenneth Mark Colby, *The Rational for Computer Based Treatment of Language Difficulties in Nonspeaking Autistic Children*, 8 pages, April 1973. *****

347. STAN-CS-73-347 (AIM-194, PB221170/4), Kenneth M. Colby and Franklin Dennis Hilf, *Multi Dimensional Analysis in Evaluating a Simulation of Paranoid Thought Processes*, 10 pages, April 1973. *****

348. STAN-CS-73-348 (SU326 P30-26, PB222513), V. Pereyra, *High Order Finite Difference Solution of Differential Equations*, 86 pages, April 1973. *****

349. STAN-CS-73-349 (PB221115), Manuel Blum, Robert Floyd, Vaughn Pratt, Ronald Rivest and Robert Tarjan, *Time Bounds for Selection*, and Robert Floyd and Ronald Rivest, *Expected Time Bounds for Selection*, 51 pages, April 1973. *****

350. STAN-CS-73-350 (CSL-TR-53, AD761177), Marc T. Kaufman, *An Almost- Optimal Algorithm for the Assembly Line Scheduling Problem*, 21 pages, April 1973. *****

351. STAN-CS-73-351 (CSL-TR-27, AD761175), Samuel H. Fuller, *Performance of an I/O Channel with Multiple Paging Drums*, 8 pages, April 1973. *****

352. STAN-CS-73-352 (CSL-TR-28, AD761176), Samuel H. Fuller, *The Expected Difference Between the SLTF and MTPT Drum Scheduling Disciplines*, 6 pages, April 1973. *****

353. STAN-CS-73-353 (CSL-TR-29, AD761185), Samuel H. Fuller, *Random Arrivals and MTPT Disc Scheduling Disciplines*, 7 pages, April 1973. *****

354. STAN-CS-73-354 (PB221165/4), David A. Klarner, *The Number of SDR's in Certain Regular Systems*, 7 pages, April 1973. *****

355. STAN-CS-73-355 (CSL-TR-57, AD764598), Thomas G. Price, *An Analysis of Central Processor Scheduling in Multiprogrammed Computer Systems*, 8 pages, April 1973. *****

356. STAN-CS-73-356 (AIM-195, PB222164), David Canfield Smith and Horace J. Enea, *MLISP2*, 92 pages, May 1973. *****

357. STAN-CS-73-357 (AIM-196, AD762471), Neil M. Goldman and Christopher K. Riesbeck, *A Conceptually Based Sentence Paraphraser*, 88 pages, May 1973. *****

358. STAN-CS-73-358 (AIM-197, AD762470), Roger C. Schank and Charles J. Rieger III, *Inference and the Computer Understanding of Natural Language*, 40 pages, May 1973. *****

359. STAN-CS-73-359 (CSL-TN-25, PB222064), Harold Stone, *A Note on a Combinatorial Problem of Burnett and Coffman*, 8 pages, May 1973. *****

360. STAN-CS-73-360 (CSL-TR-33, AD764014), Richard R. Muntz and Forest Baskett, *Open, Closed and Mixed Networks of Queues with Different Classes of Customers*, 40 pages, May 1973. *****

361. STAN-CS-73-361 (Serra, AD764273), Harold Brown and Larry Masinter, *An Algorithm for the Construction of the Graphs of Organic Molecules*, 25 pages, May 1973. *****

362. STAN-CS-73-362, appears in print as STAN-CS-73-398.

363. STAN-CS-73-363 (Serra, PB222099), Linda C. Kaufman (thesis), *The LZ Algorithm to Solve the Generalized Eigenvalue Problem*, 101 pages, May 1973. *****

364. STAN-CS-73-364 (AIM-198, AD763611), R. B. Thosar, *Estimation of Probability Density Using Signature Tables for Application to Pattern Recognition*, 36 pages, May 1973. *****

365. STAN-CS-73-365 (AIM-200, AD767331), Shigeru Igarashi, Ralph L. London and David C. Luckham, *Automatic Program Verification I: Logical Basis and its Implementation*, 50 pages, May 1973. $2.00 **M**

366. STAN-CS-73-366 (AIM-201, AD763673), Gunnar Rutger Grape (thesis), *Model Bases (Intermediate-Level* Computer Vision), 256 pages, May 1973. *****

367. STAN-CS-73-367 (AD763601), Ole Amble and Donald E. Knuth, *Ordered Hash Tables*, 34 pages, May 1973. *****

368. STAN-CS-73-368 (AIM-202, AD764396), Roger C. Schank and Yorick Wilks, *The Goals of Linguistic Theory Revisited*, 44 pages, May 1973. *****

369. STAN-CS-73-369 (AIM-203, AD764274), Roger C. Schank, *The Development of Conceptual Structures in Children*, 26 pages, May 1973. *****

370. STAN-CS-73-370 (AIM-205, AD764288), N. S. Sridharan, G. Gelernter, A. J. Hart, W.F. Fowler and H. J. Shue, *A Heuristic Program to Discover Syntheses for Complex Organic Molecules*, 30 pages, June 1973. *****

371. STAN-CS-73-371 (AD223572/AS), Donald E. Knuth, *A review of 'Structured Programming'* , 25 pages, June 1973. *****

372. STAN-CS-73-372 (AD767970), Michael A. Malcolm (thesis, part II), *Nonlinear Spline Functions*, 60 pages, June 1973. *****

373. STAN-CS-73-373 (AIM-204, AD765353/BWC), Kurt A. van Lehn (editor), *SAIL User Manual*, 200 pages, June 1973. *****

374. STAN-CS-73-374 (AD764275), Michael A. Malcolm (thesis excerpt), *A Machine-Independent ALGOL Procedure for Accurate Floating-Point Summation*, 5 pages, June 1973. *****

375. STAN-CS-73-375 (SU-326 P30-27), D. Fischer, G. H. Golub, O. Hald, C. Levin and O. Widlund, *On Fourier-Toeplitz Methods for Separable Elliptic Problems*, 30 pages, June 1973. *****

376. STAN-CS-73-376 (SU326 P30-28), Gunter Meinardus and G. D. Taylor, *Lower Estimates for the Error of Best Uniform Approximation*, 20 pages, June 1973. *****

377. STAN-CS-73-377 (AIM-206, AD764652), Yorick Wilks, *Preference Semantics*, 20 pages, June 1973. *****

378. STAN-CS-73-378 (AIM-207, AD767333), James Anderson Moorer, *The 'Optimum-Comb' Method of Pitch Period Analysis in Speech*, 25 pages, June 1973. *****

379. STAN-CS-73-379 (AIM-208, AD767334), James Anderson Moorer, *The Hetrodyne Filter as*

a Tool for Analysis of Transient Waveforms, 30 pages, June 1973. *

380. STAN-CS-73-380 (AIM-209, AD767695/O WC), Yoram Yakimovsky (thesis), *Scene Analysis Using a Semantic Base for Region Growing*, 120 pages, June 1973. *

381. STAN-CS-73-381 (AD767694), N. S. Sridharan, *Computer Generation of Vertex-Graphs*, 18 pages, July 1973. *

382. STAN-CS-73-382 (AIM-210, AD767335), Zohar Manna and Amir Pnueli, *Axiomatic Approach to Total Correctness of Programs*, 26 pages, July 1973. *

383. STAN-CS-73-383 (AIM-211, AD769673), Yorick Wilks, *Natural Language Inference*, 47 pages, July 1973. *

384. STAN-CS-73-384 (AIM-212, AD769379), Annette Herskovits, *The Generation of French from a Semantic Representation*, 50 pages, August 1973. *

385. STAN-CS-73-385 (AIM-213, not at NTIS), R. B. Thosar, *Recognition of Continuous Speech: Segmentation and Classification Using Signature Table Adaptation*, 37 pages, August 1973. *

386. STAN-CS-73-386 (AIM-214, AD767332), W. A. Perkins and T. O. Binford, *A Corner Finder for Visual Feed-Back*, 59 pages, August 1973. *

387. STAN-CS-73-387 (AIM-215, AD769380), Bruce G. Buchanan and N. S. Sridharan, *Analysis of Behavior of Chemical Molecules: Rule Formation on Non-Homogeneous Classes of Objects*, 15 pages, August 1973. *

388. STAN-CS-73-388 (CSL-TR-74, PB226044/AS), R. C. Swanson, *Interconnections for Parallel Memories to Unscramble P-Ordered Vectors*, 52 pages, August 1973. *

389. STAN-CS-73-389 (AIM-216, AD771299), L. Masinter, N. S. Sridharan, J. Lederberg and D. H. Smith, *Applications of Artificial Intelligence for Chemical Inference XII: Exhaustive Generation of Cyclic and Acyclic Isomers*, 60 pages, September 1973. *

390. STAN-CS-73-390 (not at NTIS), James Gips, *A Construction for the Inverse of a Turing Machine*, 8 pages, September 1973. *

391. STAN-CS-73-391 (AIM-217, AD770610), N. S. Sridharan, *Search Strategies for the Task of Organic Chemical Synthesis*, 32 pages, September 1973. *

392. STAN-CS-73-392, Donald E. Knuth, *Sorting and Searching - Errata and Addenda*, 31 pages, October 1973. *

393. STAN-CS-73-393 (AIM-218, AD772063/4WC), Jean Etienne Vuillemin (thesis), *Proof Techniques for Recursive Programs*, 97 pages, October 1973. *

394. STAN-CS-73-394 (AIM-219, AD769674), C. A. R. Hoare, *Parallel Programming: An Axiomatic Approach*, 33 pages, October 1973. *

395. STAN-CS-73-395, Staff, *Bibliography of Computer Science Reports*, 48 pages, October 1973. *

396. STAN-CS-73-396 (AIM-220, AD772064), Robert Bolles and Richard Paul, *The Use of Sensory Feedback in a Programmable Assembly System*, 24 pages, October 1973. *

397. STAN-CS-73-397 (SU326 P30-28A), Peter Henrici, *Computational Complex Analysis*, 14 pages, October 1973. *

398. STAN-CS-73-398 (AIM-199, AD771300), Bruce G. Baumgart, *Image Contouring and Comparing*, 52 pages, October 1973. *

399. STAN-CS-73-399 (SU326 P30-29), C. C. Paige and M. A. Saunders, *Solution of Sparse Indefinite Systems of Equations and Least Squares Problems*, 47 pages, October 1973. *

400. STAN-CS-73-400 (AIM-223, AD772509), C. A. R. Hoare, *Recursive Data Structures*, 32 pages, November 1973. *****

401. STAN-CS-73-401 (PB226691/AS), C. A. R. Hoare, *Monitors: An Operating System Structuring Concept*, 25 pages, November 1973. *****

402. STAN-CS-73-402 (PB229616/AS), J. G. Herriot and C. H. Reinsch, *ALGOL 60 Procedures for the Calculation of Interpolating Natural Quintic Spline Functions*, 40 pages, November 1973. *****

403. STAN-CS-73-403 (AIM-224, AD773391), C. A. R. Hoare, *Hints on Programming Language Design*, 29 pages, December 1973. $2.00 **M**

404. STAN-CS-74-404 (AD775452), N. S. Sridharan, *A Catalog of Quadri/Trivalent Graphs*, 48 pages, January 1974. *****

405. STAN-CS-74-405 (not at NTIS), R. Davis and M. Wright, *Stanford Computer Science Department: Research Report*, 38 pages, January 1974. *****

406. STAN-CS-74-406 (AIM-225, AD775645), W. A. Perkins, *Memory Model for a Robot*, January 1974. **M**

407. STAN-CS-74-407 (AIM-226, AD778310), F. Wright, *FAIL Manual*, 50 pages, February 1974. $2.00 **M**

408. STAN-CS-74-408 (AIM-227, AD-A003 483), Arthur Thomas and Thomas Binford, *Information Processing Analysis of Visual Perception: a review*, 40 pages, February 1974. $2.00 **M**

409. STAN-CS-74-409 (AIM-228, AD776233), John McCarthy and Staff, *Final Report: Ten Years of Research in Artificial Intelligence. An Overview*, February 1974. **M**

410. STAN-CS-74-410 (CSL-TR-46, PB231926/AS), James L. Peterson (thesis), *Modelling of Parallel Systems*, 241 pages, February 1974. $2.00 **M**

411. STAN-CS-74-411 (AIM-229), D. B. Anderson, T. O. Binford, A. J. Thomas, R. W. Weyhrauch and Y. A. Wilks, *After Leibniz...: Discussions on Philosophy and Artificial Intelligence*, 50 pages, March 1974. $2.00 **M**

412. STAN-CS-74-412 (AIM-230, AD786721), Daniel C. Swinehart (thesis), *COPILOT: A Multiple Process Approach to Interactive Programming Systems*, March 1974. **M**

413. STAN-CS-74-413 (AIM-231, AD-A001 814), James Gips (thesis), *Shape Grammars and Their Uses*, 243 pages, March 1974. $2.00 **M**

414. STAN-CS-74-414 (AIM-232, AD780452), Bruce G. Baumgart, *GEOMED: A Geometric Editor*, April 1974. **M**

415. STAN-CS-74-415 (PB233065/AS), Ronald L. Rivest (thesis), *Analysis of Associative Retrieval Algorithms*, 109 pages, April 1974. *****

416. STAN-CS-74-416 (PB233507/AS), Donald E. Knuth, *Structured Programming with* Go To *Statements*, 100 pages, April 1974. *****

417. STAN-CS-74-417 (PB234102/AS), Richard L. Sites, *Some Thoughts on Proving That Programs Terminate Cleanly*, 68 pages, May 1974. *****

418. STAN-CS-74-418 (PB233045/AS), Richard L. Sites (thesis), *Proving That Computer Programs Terminate Cleanly*, 143 pages, May 1974. *****

419. STAN-CS-74-419 (AIM-233, AD-A000 086), Charles Rieger III (thesis), *Conceptual Memory: A Theory and Computer Program for Processing the Meaning Content of Natural Language Utterances*, 393 pages, May 1974. $2.00 **M**

420. STAN-CS-74-420 (CSL-TR-50, PB232543/AS), John Wakerly, *Partially Self-Checking*

Circuits and Their Use in Performing Logical Operations, 46 pages, May 1974. *****

421. STAN-CS-74-421 (CSL-TR-51, PB232356/AS), John Wakerly (thesis), *Low- Cost Error Detection Techniques for Small Computers*, 232 pages, May 1974. *****

422. STAN-CS-74-422 (CSL-TR-79, NASA-TM-62,370), Harold Stone, *Parallel Tri-Diagonal Equation Solvers*, 42 pages, May 1974. *****

423. STAN-CS-74-423 (CSL-TN-41, PB232860/AS), Gururaj S. Rao, *Asymptotic Representation of the Average Number of Active Modules in an N-Way Interleaved Memory*, 16 pages, May 1974. *****

424. STAN-CS-74-424 (CSL-TR-80, PB232602/AS), Maurice Schlumberger (thesis, chapter 1), *Logarithmic Communications Networks*, 38 pages, May 1974. *****

425. STAN-CS-74-425 (CSL-TR-81, PB232598/AS), Maurice Schlumberger (thesis, chapter 2), *Vulnerability of deBruijn Communications Networks*, 68 pages, May 1974. *****

426. STAN-CS-74-426 (CSL-TR-82, PB232597), Maurice Schlumberger, (thesis, chapter 3), *Queueing Equal Length Messages in a Logorithmic Network*, 75 pages, May 1974. *****

427. STAN-CS-74-427 (CSL-TN-36, PB232624/AS), Tomas Lang (thesis excerpt), *Performing the Perfect Schuffle in an Array Computer*, 18 pages, May 1974. *****

428. STAN-CS-74-428 (CSL-TR-76, PB232633/AS), Tomas Lang (thesis excerpt), *Interconnections Between Processors and Memory Modules Using the Schuffle-Exchange Network*, 32 pages, May 1974. *****

429. STAN-CS-74-429 (CSL-TR-70, PB232623/AS), Samuel E. Orcutt (thesis excerpt), *Efficient Data Routing Schemes for ILLIAC IV-Type Computers*, 31 pages, May 1974. *****

430. STAN-CS-74-430 (CSL-TR-71, PB234513/AS), Samuel E. Orcutt (thesis excerpt), *A Novel Parallel Computer Architecture and Some Applications*, 44 pages, May 1974. *****

431. STAN-CS-74-431 (AIM-234, not at NTIS), Kenneth Mark Colby and Roger C. Parkison, *Pattern Matching Rules for the Recognition of Natural Language Dialogue Expressions*, 23 pages, May 1974. $2.00 **M**

432. STAN-CS-74-432 (AIM-235, AD-A006 898), Richard Weyhrauch and Arthur Thomas, *FOL: A Proof Checker for First-Order Logic*, 60 pages, May 1974. *****

433. STAN-CS-74-433 (AIM-236, AD784513), Jack R. Buchanan and David C. Luckham, *On Automating the Construction of Programs*, 65 pages, May 1974. $2.00 **M**

434. STAN-CS-74-434 (SU326 P30-31), Axel Ruhe and Per Ake Wedin, *Algorithms for Separable Nonlinear Least Squares Problems*, 50 pages, June 1974. $10.00 **H**

435. STAN-CS-74-435 (CSL-TR-88, A001-071), Thomas G. Price, *Balanced Computer Systems*, 56 pages, June 1974. *****

436. STAN-CS-74-436 (AIM-237, AD-A012 477), Yorick Wilks, *Natural Language Understanding Systems Within the A.I. Paradigm -- A Survey and Some Comparisons*, 25 pages, July 1974. $10.00 **+**

437. STAN-CS-74-437 (AIM-238, AD-A005 040), C. K. Riesbeck (thesis), *Computational Understanding: Analysis of Sentences and Context*, 245 pages, July 1974. $2.00 **M**

438. STAN-CS-74-438 (AIM-239, AD786720), Marsha Jo Hanna (thesis), *Computer Matching of Areas in Stereo Images*, 99 pages, July 1974. *****

439. STAN-CS-74-439 (OR-74-7, SU326 P30-32), Richard W. Cottle, Gene H. Golub and R. S. Sacher, *On the Solution of Large, Structured Linear Complementarity Problems: III*, 87 pages, July 1974. *****

440. STAN-CS-74-440 (PB237360/AS), James H. Morris, Jr., Vaughn R. Pratt and Donald

E. Knuth, *Fast Pattern Matching in Strings*, 32 pages, July 1974. *

441. STAN-CS-74-441 (AD-A000 284), Donald E. Knuth and Ronald W. Moore, *An Analysis of Alpha-Beta Pruning*, 64 pages, July 1974. *

442. STAN-CS-74-442 (AD-A004 208), Donald E. Knuth, *Estimating the Efficiency of Backtrack Programs*, 30 pages, July 1974. *

443. STAN-CS-74-443 (PB-236 471/AS), Douglas K. Brotz (thesis), *Embedding Heuristic Problem Solving Methods in a Mechanical Theorem Prover*, 107 pages, July 1974. $2.00 **M**

444. STAN-CS-74-444 (AIM-240, AD787035), C. C. Green, R. J. Waldinger, D. R. Barstow, R. Elschlager, D. B. Lenat, B. P. McCune, D. E. Shaw and L. I. Steinberg, *Progress Report on Program-Understanding Systems*, 50 pages, July 1974. $2.00 **M**

445. STAN-CS-74-445 (SLACP-1448), J. H. Friedman, F. Baskett and L. J. Shustek, *A Relatively Efficient Algorithm for Finding Nearest Neighbors*, 21 pages, September 1974. *

446. STAN-CS-74-446 (AIM-241, AD786723), L. Aiello and R. W. Weyhrauch, *LCFsmall: An Implementation of LCF*, 45 pages, September 1974. $10.00 **+**

447. STAN-CS-74-447 (AIM-221, AD787631), L. Aiello, M. Aiello and R. W. Weyhrauch, *Semantics of Pascal in LCF*, 78 pages, September 1974. $2.00 **M**

448. STAN-CS-74-448 (SU326 P30-33), D. Goldfarb, *Matrix Factorizations in Optimization of Nonlinear Functions Subject to Linear Constraints*, 45 pages, September 1974. $10.00 **H**

449. STAN-CS-74-449 (CSL-TR-89, AD785027), A. Smith (thesis), *Performance Analysis of Computer Systems Components*, 323 pages, September 1974. *

450. STAN-CS-74-450 (CSL-TR-90, AD787008), F. Baskett and A. J. Smith (thesis, chapter 3), *Interference in Multiprocessor Computer Systems with Interleaved Memory*, 45 pages, September 1974. *

451. STAN-CS-74-451 (CSL-TR-91, AD786999), A. Smith (thesis, chapter 5), *A Modified Working Set Paging Algorithm*, 40 pages, October 1974. *

452. STAN-CS-74-452 (AIM-242, AD-A000 500), J. R. Low (thesis), *Automatic Coding: Choice of Data Structures*, 110 pages, September 1974. $2.00 **M**

453. STAN-CS-74-453 (AD-A000 034), Donald E. Knuth, *Random Matroids*, 30 pages, September 1974. *

454. STAN-CS-74-454 (SU326 P30-35), L. S. Jennings, *A Computational Approach to Simultaneous Estimation*, 15 pages, September 1974. $10.00 **H**

455. index(Tarjan, R. E.) STAN-CS-74-455 (AD-A000 083), Robert E. Tarjan, *Edge-Disjoint Spanning Trees, Dominators, and Depth-First Search*, 40 pages, September 1974. *

456. STAN-CS-74-456 (AIM-243, AD-A003 815), R. Finkel, R. Taylor, R. Bolles, R. Paul and J. Feldman, *AL, A Programming System for Automation: Preliminary Report*, 117 pages, October 1974. *

457. STAN-CS-74-457 (AIM-244, not at NTIS), K. M. Colby, *Ten Criticisms of Parry*, 7 pages, October 1974. *

458. STAN-CS-74-458 (AIM-245, AD784816), J. Buchanan (thesis), *A Study in Automatic Programming*, 146 pages, October 1974. *

459. STAN-CS-74-459 (AIM-246, AD-A000 085), Terry A. Winograd, *Five Lectures on Artificial Intelligence*, 95 pages, October 1974. $2.00 **M**

460. STAN-CS-74-460 (PB238148/AS), T. Porter and I. Simon, *Random Insertion into a Priority Queue Structure*, 25 pages, October 1974. $10.00 **H**

461. STAN-CS-74-461 (AIM-247, AD-A005 041), N. M. Goldman (thesis), *Computer Generation of Natural Language from a Deep Conceptual Base*, 316 pages, October 1974. $2.00 **M**

462. STAN-CS-74-462 (AIM-248), K. Pingle and A. J. Thomas, *A Fast, Feature-Driven Stereo Depth Program*, 15 pages, October 1974. $2.00 **M**

463. STAN-CS-74-463 (AIM-249, AD-A002 261), Bruce Baumgart (thesis), *Geometric Modeling for Computer Vision*, 141 pages, November 1974. $2.00 **M**

464. STAN-CS-74-464 (AIM-250, AD-A003 488), Ramakant Nevatia (thesis), *Structured Descriptions of Complex Curved Objects for Recognition and Visual Memory*, 125 pages, November 1974. $2.00 **M**

465. STAN-CS-74-465 (AIM-251, AD-A001 373), E. H. Shortliffe (thesis), *MYCIN: A Rule-Based Computer Program for Advising Physicians Regarding Antimicrobial Therapy Selection*, 409 pages, November 1974. $2.00 **M**

466. STAN-CS-74-466 (AIM-252, AD-A002 246), Lester Earnest (editor), *Recent Research in Artificial Intelligence, Heuristic Programming, and Network Protocols*, 79 pages, November 1974. $2.00 **M**

467. STAN-CS-74-467 (AIM-222, AD-A007 562), M. Aiello and R. Weyhrauch, *Checking Proofs in the Meta-Mathematics of First Order Logic*, 55 pages, November 1974. $10.00 **+**

468. STAN-CS-74-468 (AD-A003 832), S. Krogdahl, *A Combinatorial Base for Some Optimal Matroid Intersection Algorithms*, 25 pages, November 1974. $10.00 **H**

469. STAN-CS-74-469, H. Brown, *Molecular Structure Elucidation III*, 38 pages, December 1974. $10.00 **H**

470. STAN-CS-74-470, L. Trabb Prado, *Stable Sorting and Merging with Optimal Time and Space Bounds*, 75 pages, December 1974. *****

471. STAN-CS-74-471 (AIM-253, AD-A003 487), W. Faught, K. M. Colby and R. C. Parkison, *The Interaction of Inferences, Affects, and Intentions in a Model of Paranoia*, 38 pages, December 1974. $10.00 **+**

472. STAN-CS-74-472 (AIM-254, AD-A005 407), L. H. Quam and M. J. Hanna, *Stanford Automatic Photogrammetry Research*, 15 pages, December 1974. $10.00 **+**

473. STAN-CS-74-473 (AIM-255, AD-A005 412), N. Suzuki, *Automatic Program Verification II: Verifying Programs by Algebraic and Logical Reduction*, 28 pages, December 1974. $2.00 **M**

474. STAN-CS-74-474 (AIM-256, AD-A007 563), F. W. von Henke and D. C. Luckham, *A Methodology for Verifying Programs*, 45 pages, December 1974. $2.00 **M**

475. STAN-CS-75-475 (AIM-257, AD-A005 413), M. C. Newey (thesis), *Formal Semantics of LISP with Applications to Program Correctness*, 184 pages, January 1975. $2.00 **M**

476. STAN-CS-75-476 (AIM-258, AD-A006 294), Cordell Green and David Barstow, *A Hypothetical Dialogue Exhibiting a Knowledge Base for a Program-Understanding System*, 45 pages, January 1975. $2.00 **M**

477. STAN-CS-75-477 (not at NTIS), V. Chvatal and D. Sankoff, *Longest Common Subsequences of Two Random Sequences*, 18 pages, January 1975. $10.00 **+**

478. STAN-CS-75-478 (SU326 P30-36), G. H. Golub and J. H. Wilkinson, *Ill- Conditioned Eigensystems and the Computation of the Jordan Canonical Form*, 66 pages, February 1975. *****

479. STAN-CS-75-479 (SU326 P30-38), F. Chatelin and J. Lemordant, *Error Bounds in the Approximation of Eigenvalues of Differential and Integral Operators*, 24 pages, February 1975. *****

480. STAN-CS-75-480 (A008804), Donald E. Knuth, *Notes on Generalized Dedekind Sums*, 45 pages, February 1975. *****

481. STAN-CS-75-481 (SU326 P30-39), J. Oliger, *Difference Methods for the Initial-Boundary Value Problem for Hyperbolic Equations*, 31 pages, February 1975. $10.00 **H**

482. STAN-CS-75-482 (SLACP-1549, not at NTIS), J. A. Friedman, J. L. Bentley and R. A. Finkel, *An Algorithm for Finding Best Matches in Logarithmic Time*, 31 pages, March 1975. *****

483. STAN-CS-75-483 (AD-A011 835), P. Erdos and R. L. Graham, *On Packing Squares with Equal Squares*, 8 pages, March 1975. $10.00 **H**

484. STAN-CS-75-484 (AD-A011 832), R. L. Graham and E. Szemeredi, *On Subgraph Number Independence in Trees*, 18 pages, March 1975. $10.00 **H**

485. STAN-CS-75-485 (AD-A011 834), P. Erdos and E. Szemeredi, *On Multiplicative Representations of Integers*, 18 pages, March 1975. $10.00 **H**

486. STAN-CS-75-486 (SU326 P30-37), A. Bjorck and G. H. Golub, *Eigenproblems for Matrices Associated with Periodic Boundary Conditions*, 19 pages, March 1975. *****

487. STAN-CS-75-487 (SLACP-1573), J. H. Friedman, *A Variable Metric Decision Rule for Non-Parametric Classification*, 34 pages, April 1975. $10.00 **H**

488. STAN-CS-75-488 (AD-A011 445), B. Bollobas, P. Erdos and E. Szemeredi, *On Complete Subgraphs of r-Chromatic Graphs*, 16 pages, April 1975. $10.00 **H**

489. STAN-CS-75-489 (AD-A011 833), E. Szemeredi, *Regular Partitions of Graphs*, 8 pages, April 1975. $10.00 **H**

490. STAN-CS-75-490 (AD-A014 429), R. William Gosper, *Numerical Experiments with the Spectral Test*, 31 pages, May 1975. $10.00 **H**

491. STAN-CS-75-491, G. D. Knott (thesis), *Deletion in Binary Storage Trees*, 93 pages, May 1975. *****

492. STAN-CS-75-492, R. Sedgewick (thesis), *Quicksort*, 352 pages, May 1975. *****

493. STAN-CS-75-493 (PB244421/AS), R. Kurki-Suonio, *Describing Automata in Terms of Languages Associated with Their Peripheral Devices*, 37 pages, May 1975. $10.00 **H**

494. STAN-CS-75-494, E. H. Satterthwaite, Jr. (thesis), *Source Language Debugging Tools*, 345 pages, May 1975. *****

495. STAN-CS-75-495 (AD-A014 424), S. Krogdahl, *The Dependence Graph for Bases in Matroids*, 29 pages, May 1975. $10.00 **H**

496. STAN-CS-75-496 (SU326 P30-41), R. Underwood (thesis), *An Iterative Block Lanczos Method for the Solution of Large Sparse Symmetric Eigenproblems*, 133 pages, May 1975. *****

497. STAN-CS-75-497 (AD-A016 825), R. L. Graham and L. Lovasz, *Distance Matrices of Trees*, 48 pages, August 1975. $10.00 **H**

498. STAN-CS-75-498 (AIM-259, AD-A017 025), H. Samet (thesis), *Automatically Proving the Correctness of Translations Involving Optimized Code*, 214 pages, August 1975. $2.00 **M**

499. STAN-CS-75-499 (AIM-260), D. C. Smith (thesis), *PYGMALION: A Creative Programming Environment*, 193 pages, August 1975. $2.00 **M**

500. STAN-CS-75-500 (PB246708/AS), R. Kurki-Suonio, *Towards Better Definitions of Programming Languages*, 29 pages, August 1975. *****

501. STAN-CS-75-501 (AIM-261, AD-A016 810), O. Pettersen, *Procedural Events as Software*

Interrupts, 8 pages, August 1975. $10.00 **+**

502. STAN-CS-75-502 (AIM-262, AD-A016 808), O. Pettersen, *Synchronization of Concurrent Processes*, 14 pages, August 1975. $10.00 **+**

503. STAN-CS-75-503 (AIM-263, AD-A016 807), O. Pettersen, *The Macro- Processing System STAGE2*, 20 pages, August 1975. $10.00 **+**

504. STAN-CS-75-504 (AD-A017 370), P. Erdos, R. L. Graham and E. Szemeredi, *On Sparse Graphs with Dense Long Paths*, 14 pages, August 1975. $10.00 **H**

505. STAN-CS-75-505 (AD-A017 053), V. Chvatal, *Some Linear Programming Aspects of Combinatorics*, 30 pages, August 1975. $10.00 **H**

506. STAN-CS-75-506 (AIM-264, AD-A017 176), M. Gordon, *Operational Reasoning and Denotational Semantics*, 30 pages, August 1975. *****

507. STAN-CS-75-507 (AIM-265), M. Gordon, *Towards a Semantic Theory of Dynamic Binding*, 25 pages, August 1975. $10.00 **+**

508. STAN-CS-75-508, James Eve, *On Computing the Transitive Closure of a Relation*, 14 pages, August 1975. *****

509. STAN-CS-75-509 (AD-A017 331), M. Overton and A. Proskurowski, *Finding the Maximal Incidence Matrix of a Large Graph*, 72 pages, August 1975. $10.00 **H**

510. STAN-CS-75-510 (AD-A017 054), A. C. Yao and D. E. Knuth, *Analysis of the Subtractive Algorithm for Greatest Common Divisors*, 10 pages, August 1975. $10.00 **H**

511. STAN-CS-75-511 (AD-A017 294), P. Dubost and J. M. Trousse, *Software Implementation of a New Method of Combinatorial Hashing*, 35 pages, August 1975. *****

512. STAN-CS-75-512 (PB247895/AS), Robert E. Tarjan, *Applications of Path Compression on Balanced Trees*, 53 pages, October 1975. *****

513. STAN-CS-75-513 (SLACR-186), J. L. Bentley, *A Survey of Techniques for Fixed Radius Near Neighbor Searching*, 30 pages, October 1975. $10.00 **H**

514. STAN-CS-75-514 (PB247561/AS), N. Tokura, *A Microprogram Control Unit Based on a Tree Memory*, 39 pages, October 1975. *****

515. STAN-CS-75-515, R. P. Brent, *Fast Multiple-Precision Evaluation of Elementary Functions*, 22 pages, October 1975. $10.00 **H**

516. STAN-CS-75-516 (SU326 P30-42), J. Stoer, *On the Relation Between Quadratic Termination and Convergence Properties of Minimization Algorithms*, 103 pages, October 1975. *****

517. STAN-CS-75-517, V. Chvatal and C. Thomassen, *Distances in Orientations of Graphs*, 24 pages, October 1975. *****

518. STAN-CS-75-518 (AD-A018 461), V. Chvatal and P. L. Hammer, *Aggregation of Inequalities in Integer Programming*, 27 pages, October 1975. $10.00 **H**

519. STAN-CS-75-519 (AIM-266, AD-A019 641), R. Davis, B. Buchanan and E. Shortliffe, *Production Rules as a Representation for a Knowledge- Based Consultation Program*, 37 pages, November 1975. $2.00 **M**

520. STAN-CS-75-520 (AIM-267, AD-A019 664), F. W. von Henke, *On the Representation of Data Structures in LCF with Applications to Program Generation*, 41 pages, November 1975. $10.00 **+**

521. STAN-CS-75-521 (AIM-268), C. Thompson, *Depth Perception in Stereo Computer Vision*, 16 pages, November 1975. $10.00 **+**

522. STAN-CS-75-522 (AIM-269, AD-A019 569), D. C. Luckham and N. Suzuki, *Automatic Program Verification IV: Proof of Termination Within a Weak Logic of Programs*, 39 pages, November 1975. $10.00 **+**

523. STAN-CS-75-523 (AIM-270, AD-A019 467), J. F. Reiser, *BAIL -- A Debugger for SAIL*, 26 pages, November 1975. $2.00 **M**

524. STAN-CS-75-524 (AIM-271, AD-A019 702), R. Davis and J. King, *An Overview of Production Systems*, 40 pages, November 1975. $2.00 **M**

525. STAN-CS-75-525 (AIM-272), S. Ganapathy (thesis), *Reconstruction of Scenes Containing Polyhedra from Stereo Pair of Views*, 204 pages, November 1975. $2.00 **M**

526. STAN-CS-75-526 (AD-A020 848), Robert E. Tarjan, *Graph Theory and Gaussian Elimination*, 23 pages, November 1975. *****

527. STAN-CS-75-527 (CSL-TR-100, not at NTIS), E. McCluskey, J. Wakerly and R. Ogus, *Center for Reliable Computing*, 100 pages, November 1975. *****

528. STAN-CS-75-528 (AD-A020 597), Robert E. Tarjan, *Solving Path Problems on Directed Graphs*, 45 pages, November 1975. *****

529. STAN-CS-75-529 (SLACP-1665), J. L. Bentley and J. H. Friedman, *Fast Algorithms for Constructing Minimal Spanning Trees in Coordinate Spaces*, 29 pages, November 1975. $10.00 **H**

530. STAN-CS-75-530 (SU326 P30-40), M. Lentini and V. Pereyra, *An Adaptive Finite Difference Solver for Nonlinear Two Point Boundary Problems with Mild Boundary Layers*, 42 pages, November 1975. *****

531. STAN-CS-75-531 (AD-A020 847), D. J. Rose and R. E. Tarjan, *Algorithmic Aspects of Vertex Elimination on Directed Graphs*, 45 pages, November 1975. *****

532. STAN-CS-75-532, Pat E. Jacobs (staff), *Bibliography of Computer Science Reports*, 77 pages, November 1975. *****

533. STAN-CS-76-533 (LBL-4604, SU326 P30-44), P. Concus, G. H. Golub and D. P. O'Leary, *A Generalized Conjugate Gradient Method for the Numerical Solution of Elliptic Partial Differential Equations*, 24 pages, January 1976. *****

534. STAN-CS-76-534 (AIM-273), Linda G. Hemphill (thesis), *A Conceptual Approach to Automatic Language Understanding and Belief Structures: With Disambiguation of the Word 'For'* , 254 pages, January 1976. $2.00 **M**

535. STAN-CS-76-535, P. Concus and G. H. Golub, *A Generalized Conjugate Gradient Method for Non-Selmmetric Systems of Linear Equations*, 12 pages, January 1976. *****

536. STAN-CS-76-536 (AIM-274, AD-A020 942/9WC), David Grossman and Russell Taylor, *Interactive Generation of Object Models with a Manipulator*, 32 pages, January 1976. $2.00 **M**

537. STAN-CS-76-537 (AIM-275, AD-A020 943/7WC), Robert C. Bolles, *Verification Vision Within a Programmable Assembly System: An Introductory Discussion*, 82 pages, January 1976. $10.00 **+**

538. STAN-CS-76-538 (AD-A024 416), Donald E. Knuth and L. Trabb Pardo, *Analysis of a Simple Factorization Algorithm*, 43 pages, January 1976. $10.00 **+**

539. STAN-CS-76-539 (AIM-276, AD-A021 055/9WC), Zohar Manna and Adi Shamir, *A New Approach to Recursive Programs*, 26 pages, January 1976. $10.00 **+**

540. STAN-CS-76-540 (AD-A021 587), R. L. Graham, A. C. Yao and F. F. Yao, *Addition Chains with Multiplicative Cost*, 7 pages, January 1976. $10.00 **H**

541. STAN-CS-76-541, Donald E. Knuth, *Mathematics and Computer Science: Coping with Finiteness*, 30 pages, March 1976. *****

542. STAN-CS-76-542 (AIM-277, AD-A027 454), Zohar Manna and Adi Shamir, *The Theoretical Aspects of the Optimal Fixedpoint*, 24 pages, March 1976. $2.00 **M**

543. STAN-CS-76-543, D. A. Zave, *Optimal Polyphase Sorting*, 75 pages, March 1976. *****

544. STAN-CS-76-544, B. Mont-Reynaud, *Removing Trivial Assignments from Programs*, 28 pages, March 1976. *****

545. STAN-CS-76-545, W. J. Paul, R. E. Tarjan and J. R. Celoni, *Space Bounds for a Game on Graphs*, 21 pages, March 1976. *****

546. STAN-CS-76-546 (SLACP-1715), F. Baskett and L. Sustek, *The Design of a Low Cost Video Graphics Terminal*, 25 pages, March 1976. $10.00 **H**

547. STAN-CS-76-547, Robert E. Tarjan, *Iterative Algorithms for Global Flow Analysis*, 31 pages, March 1976. *****

548. STAN-CS-76-548, D. Prost O'Leary (thesis), *Hybrid Conjugate Gradient Algorithms*, 120 pages, March 1976. *****

549. STAN-CS-76-549 (AIM-278, AD-A027 455), David Luckham and Norihisa Suzuki, *Automatic Program Verification V: Verification-Oriented Proof Rules or Arrays, Records and Pointers*, 48 pages, March 1976. $10.00 **H**

550. STAN-CS-76-550, R. E. Tarjan and A. E. Trojanowski, *Finding a Maximum Independent Set*, 22 pages, June 1976. $10.00 **H**

551. STAN-CS-76-551 (AD-A032 347), Donald E. Knuth, *The State of the Art of Computer Programming*, 57 pages, June 1976. *****

552. STAN-CS-76-552 (AIM-279), Norihsa Suzuki (thesis), *Automatic Verification of Programs with Complex Data Structures*, 194 pages, February 1976. *****

553. STAN-CS-76-553 (AD-A032 772), R. E. Tarjan, *Complexity of Monotone Networks for Computing Conjunctions*, 21 pages, June 1976. *****

554. STAN-CS-76-554, F. S. Yu (thesis), *Modeling the Write Behavior of Computer Programs*, 185 pages, June 1976. $15.00 **H**

555. STAN-CS-76-555 (AIM-280), David D. Grossman, *Monte Carlo Simulation of Tolerancing in Discrete Parts Manufacturing and Assembly*, 25 pages, May 1976. *****

556. STAN-CS-76-556, L. J. Guibas (thesis), *The Analysis of Hashing Algorithms*, 136 pages, August 1976. $15.00 **+**

557. STAN-CS-76-557 (AD-A032 122), M. S. Paterson, *An Introduction to Boolean Function Complexity*, 19 pages, August 1976. $10.00 **+**

558. STAN-CS-76-558 (AIM-281.1, AD-A042 507), Zohar Manna and Richard Waldinger, *Is 'sometime' sometimes better than 'always'? Intermittent assertions in proving program correctness*, 41 pages, June 1976. revised March 1977. $10.00 **H**

559. STAN-CS-76-559 (AD-A032 348), Gene Golub, V. Klema and G. W. Stewart, Bi(Rank Degeneracy and Least Squares Problems), 38 pages, August 1976. $2.00 **M**

560. STAN-CS-76-560 (AIM-282), Russell Taylor (thesis), *Synthesis of Manipulator Control Programs from Task-level Specifications*, 229 pages, July 1976. *****

561. STAN-CS-76-561, D. R. Woods, *Mathematical Programming Language: User's Guide*, 139 pages, August 1976. $15.00 **+**

562. STAN-CS-76-562 (AD-A032 123), Donald E. Knuth and L. Trabb Prado, *The Early*

Development of Programming Languages, 109 pages, August 1976. $15.00 **+**

563. STAN-CS-76-563, D. L. Russell (thesis), *State Restoration Among Communicating Processes*, 173 pages, August 1976. *****

564. STAN-CS-76-564 (AIM-283, HPP-76-112), Randall Davis (thesis), *Applications of Meta Level Knowledge to the Construction, Maintenance and Use of Large Knowledge Bases*, 304 pages, July 1976. *****

565. STAN-CS-76-565 (AD-A032 802), J. C. Strikwerda (thesis), *Initial Boundary Value Problems for Incompletely Parabolic Systems*, 107 pages, November 1976. $2.00 **M**

566. STAN-CS-76-566, Margaret Wright (thesis), *Numerical Methods for Nonlinearly Constrained Optimization*, 262 pages, November 1976. $2.00 **M**

567. STAN-CS-76-567 (AIM-284), Rafael Finkel (thesis), *Constructing and Debugging Manipulator Programs*, 171 pages, August 1976. $15.00 **+**

568. STAN-CS-76-568 (AIM-285, PB-259 130/2WC), T. O. Binford, D. D. Grossman, C. R. Lui, R. C. Bolles, R. A. Finkel, M. S. Mujtaba, M. D. Roderick, B. E. Shimano, R. H. Taylor, R. H. Goldman, J. P. Jarvis, V. D. Scheinman, T. A. Gafford, *Exploratory Study of Computer Integrated Assembly Systems* 336 pages, August 1976. *****

569. STAN-CS-76-569 (P261 814/AS), John G. Herriot, *Calculation of interpolating Natural Spline Functions Using De Boor's Package for Calculating with B-Splines*, 46 pages, November 1976. $10.00 **+**

570. STAN-CS-76-570 (AIM-286), Douglas Lenat (thesis), *AM: An Artificial Intelligence Approach to Discovery in Mathematics as Heuristic Search*, 350 pages, July 1976. $2.00 **M**

571. STAN-CS-76-571 (AIM-287), Michael Roderick (thesis), *Discrete Control of a Robot Arm*, 98 pages, August 1976. $10.00 **+**

572. STAN-CS-76-572 (AIM-288), Robert Filman and Richard Weyhrauch, *An FOL Primer*, 36 pages, September 1976. $2.00 **M**

573. STAN-CS-76-573 (AD-A032 945), Arne Jonassen, *The Stationary P-Tree Forest*, 90 pages, November 1976. $10.00 **+**

574. STAN-CS-76-574 (AIM-289), John Reiser (editor), *SAIL Manual*, 178 pages, August 1976. $2.00 **M**

575. STAN-CS-76-575 (AIM-290, AD-A042 494), Nancy W. Smith, *SAIL Tutorial*, 54 pages, November 1976. $2.00 **M**

576. STAN-CS-76-576 (AD-A035 350), Colin McDiarmid, *Determining the Chromatic Number of a Graph*, 61 pages, December 1976. $10.00 **+**

577. STAN-CS-76-577 (AIM-291, AO44 713), Bruce Buchanan, Joshua Lederberg and John McCarthy, *Three Reviews of J. Weizenbaum's Computer Power and Human Reason*, 28 pages, November 1976. $2.00 **M**

578. STAN-CS-76-578 (AD-A035 219), Joseph Oliger and Arne Sundstrom, *Theoretical and Practical Aspects of Some Initial-Boundary Value Problems in Fluid Dynamics*, 62 pages, December 1976. $2.00 **M**

579. STAN-CS-76-579 (SLACP-1826), Forrest Baskett and Abbas Rafii, *The A0 Inversion Model of Program Paging Behavior*, 30 pages, December 1976. $10.00 **+**

580. STAN-CS-76-580 (AIM-292), Terry A. Winograd, *Towards a Procedural Understanding of Semantics*, 30 pages, October 1976. $2.00 **M**

581. STAN-CS-76-581 (AIM-293, AD-A042 508), Daniel Bobrow and Terry A. Winograd, *An Overview of KRL*, 40 pages, November 1976. *****

582. STAN-CS-76-582 (AD-A038 863), V. Chvatal, M. R. Garey, and D. S. Johnson, *Two Results Concerning Multicoloring*, 9 pages, December 1976. $10.00 **+**

583. STAN-CS-77-583 (AD-A038 864), V. Chvatal, *Determining the Stability Number of a Graph*, 39 pages, February 1977. *****

584. STAN-CS-77-584 (AD-A038 865), Donald E. Knuth, *Deletions That Preserve Randomness*, 32 pages, February 1977. $10.00 **+**

585. STAN-CS-77-585, P. Concus, G. H. Golub and D. O'Leary, *Numerical Solution of Nonlinear Elliptic Partial Differential Equations by a Generalized Conjugate Gradient Method*, 43 pages, February 1977. $2.00 **M**

586. STAN-CS-77-586 (AIM-294, AD-A042 516), Nachum Dershowitz and Zohar Manna, *The Evolution of Programs: A System for Automatic Program Modification*, 45 pages, February 1977. $10.00 **H**

587. STAN-CS-77-587 (AD-A038 867), M. R. Garey, R. L. Graham, D. S. Johnson, and D. E. Knuth, *Complexity Results for Bandwidth Minimization*, 36 pages, February 1977. $10.00 **+**

588. STAN-CS-77-588 (PB-266 381/AS), Tony Fan C. Chan, *On Computing the Singular Value Decomposition*, 57 pages, February 1977. $2.00 **M**

589. STAN-CS-77-589 (HPP-77-2, AD-A038 866), Robert S. Engelmore and H. P. Nii, *A Knowledge-Based System for the Interpretation of Protein X- Ray Crystallographic Data*, 36 pages, February 1977. $10.00 **+**

590. STAN-CS-77-590 (AD-A038 868), Donald E. Knuth and Michael S. Paterson, *Identities from Partition Involutions*, 22 pages, February 1977. $10.00 **+**

591. STAN-CS-77-591 (AIM-295), Robert C. Bolles (thesis), *Verification Vision Within a Programmable Assembly System*, 245 pages, February 1977. *****

592. STAN-CS-77-592 (AIM-296), Robert Cartwright, Jr. (thesis), *A Practical Formal Semantic Definition and Verification Systems for Typed LISP*, 158 pages, February 1977. *****

593. STAN-CS-77-593 (HPP-77-1), A. C. Scott, W. J. Clancey, R. Davis, and E. H. Shortliffe, *Explanation Capabilities of Production-Based Consultation Systems*, 30 pages, April 1977. $2.00 **M**

594. STAN-CS-77-594 (SLAC-200), Edwin P. Stritter (thesis), *File Migration*, 112 pages, April 1977. $15.00 **H**

595. STAN-CS-77-595, John Gregg Lewis (thesis), *Algorithms for Sparse Matrix Eigenvalue Problems*, 212 pages, April 1977. $2.00 **M**

596. 24~STAN-CS-77-596 (HPP-77-5), Mark J. Stefik and Nancy Martin, *A Review of Knowledge Based Problem Solving as a Basis for a Genetics Experiment Designing System*, 97 pages, April 1977. $10.00 **+**

597. STAN-CS-77-597 (HPP-77-6), Bruce G. Buchanan and Tom M. Mitchell, *Model-Directed Learning of Production Rules*, 21 pages, April 1977. $10.00 **+**

598. STAN-CS-77-598 (AD-A040 486), Arne T. Jonassen and Donald E. Knuth, *A Trivial Algorithm Whose Analysis Isn't*, 32 pages, April 1977. *****

599. STAN-CS-77-599 (AD-A040 441), Donald E. Knuth and Arnold Schonhage, *The Expected Linearity of a Simple Equivalence Algorithm*, 56 pages, April 1977. $10.00 **+**

600. STAN-CS-77-600 (AD-A040 538), Mark R. Brown (thesis), *The Analysis of a Practical and Nearly Optimal Priority Queue*, 102 pages, April 1977. $2.00 **M**

601. STAN-CS-77-601 (AD-A045 652), John F. Reiser (thesis), *Analysis of Additive Random*

Number Generators, 34 pages, April 1977. $2.00 **M**

602. STAN-CS-77-602, C. DeBoor and G. H. Golub, *The Numerically Stable Reconstruction of a Jacobi Matrix from Spectral Data*, 21 pages, April 1977. $2.00 **M**

603. STAN-CS-77-603 (AD-A041 292), Robert E. Tarjan, *Reference Machines Require Non-Linear Time to Maintain Disjoint Sets*, 45 pages, April 1977. $10.00 **+**

604. STAN-CS-77-604 (AD-A040 399), Tony F. C. Chan and Joseph Oliger, *Control of the Dissipativity of Lax-Wendroff Type Methods for First Order Systems of Hyperbolic Equations*, 45 pages, April 1977. $2.00 **M**

605. STAN-CS-77-605 (HPP-77-14, AD-A042 834), R. G. Smith, T. M. Mitchell, R. A. Chestek and B. Buchanan, *A Model for Learning Systems*, 22 pages, June 1977. $2.00 **M**

606. STAN-CS-77-606, Michael J. Clancy and Donald E. Knuth, *A Programming and Problem-Solving Seminar*, 104 pages, June 1977. *****

607. STAN-CS-77-607 (CSL-TR-133), Susan Owicki, *Specifications and Proofs for Abstract Data Types in Concurrent Programs*, 26 pages, June 1977. $10.00 **+**

608. STAN-CS-77-608, Istvan Simon (thesis), *On Some Subrecursive Reducibilities*, 102 pages, June 1977. $2.00 **M**

609. STAN-CS-77-609 (AD-A043 362), Robert E. Tarjan, *Complexity of Combinatorial Algorithms*, 97 pages, June 1977. $2.00 **M**

610. STAN-CS-77-610 (AIM-297), Terry A. Winograd, *A Framework for Understanding Discourse*, 24 pages, June 1977. *****

611. STAN-CS-77-611 (AIM-298, AD-A046 703), Zohar Manna, Richard Waldinger, *The Logic of Computer Programming*, 90 pages, June 1977. *****

612. STAN-CS-77-612 (HPP-77-7, AD-A042 756), H. Penny Nii and Edward A. Feigenbaum, *Rule-Based Understanding of Signals*, 23 pages, June 1977. $10.00 **+**

613. STAN-CS-77-613, E. Spedicato, *On Some Classes of Quasi-Newton Methods for Systems of Nonlinear Algebraic Equations*, 31 pages, June 1977. $10.00 **+**

614. STAN-CS-77-614 (AIM-299), Zohar Manna, Adi Shamir, *The Convergence of Functions to Fixedpoints of Recursive Definitions*, 45 pages, June 1977. $10.00 **H**

615. STAN-CS-77-615, R. Glowinski and O. Pironneau, *Numerical Methods for the First Biharmonic Equation and for the Two- Dimensional Stokes Problem*, 86 pages, June 1977. $2.00 **M**

616. STAN-CS-77-616 (AD-A046 311), Heinz-Otto Kreiss and Joseph Oliger, *Stability of the Fourier Method*, 25 pages, September 1977. $2.00 **M**

617. STAN-CS-77-617 (AIM-300), Terry A. Winograd, *On some Contested Suppositions of Generative Linguistics about the Scientific Study of Language*, 25 pages, September 1977. *****

618. STAN-CS-77-618 (HPP-77-28, AD-A045 948), Nils J. Nilsson, *A Production System for Automatic Deduction*, 42 pages, September 1977. $2.00 **M**

619. STAN-CS-77-619 (AD-A046 481), W. J. Paul and R. E. Tarjan, *Time- Space Trade-Offs in a Pebble Game*, 8 pages, September 1977. $10.00 **+**

620. STAN-CS-77-620, J. Bolstad and J. Oliger, *Adaptation of the Fourier Method to the Nonperiodic Initial Boundary Value Problem*, 80 pages, September 1977. *****

621. STAN-CS-77-621 (HPP-77-25, AD-A046 289), E. A. Feigenbaum, *The Art of Artificial Intelligence: I. Themes and Case Studies of Knowledge Engineering*, 18 pages, September 1977. $10.00 **+**

622. STAN-CS-77-622, G. H. Golub, M. Heath and G. Wahba, *Generalized Cross-Validation as a Method for Choosing a Good Ridge Parameter*, 25 pages, September 1977. $2.00 **M**

623. STAN-CS-77-623, D. Boley and G. H. Golub, *Inverse Eigenvalue Problems for Band Matrices*, 75 pages, September 1977. $2.00 **M**

624. STAN-CS-77-624 (AIM-301, AD-A044 231), Lester Earnest, et. al., *Recent Research in Computer Science*, 118 pages, September 1977. *****

625. STAN-CS-77-625 (AD-A046 090), Mark R. Brown and Robert E. Tarjan, *A Fast Merging Algorithm*, 42 pages, September 1977. $10.00 **+**

626. STAN-CS-77-626, Andrew C. Yao, *On the Loop Switching Addressing Problem*, 21 pages, October 1977. $10.00 **+**

627. STAN-CS-77-627 (AD-A048 786), Richard J. Lipton and Robert E. Tarjan, *A Separator Theorem for Planar Graphs*, 31 pages, October 1977. $10.00 **+**

628. STAN-CS-77-628 (AD-A048 787), Richard J. Lipton and Robert E. Tarjan, *Applications of a Planar Separator Theorem*, 34 pages, October 1977. $10.00 **+**

629. STAN-CS-77-629, Andrew C. Yao, *The Complexity of Pattern Matching for a Random String*, 43 pages, October 1977. $10.00 **+**

630. STAN-CS-77-630 (AIM-302, AD-AO49 761), Zohar Manna and Richard Waldinger *Synthesis: Dreams => Programs*, 119 pages, October 1977. *****

631. STAN-CS-77-631 (AIM-303, AD-A050 806), Nachum Dershowitz and Zohar Manna, *Inference Rules for Program Annotation*, 46 pages, October 1977. *****

632. STAN-CS-77-632 (AIM-304, AD-A048 684), Todd Jeffery Wagner (thesis), *Hardware Verification*, 102 pages, October 1977. *****

633. STAN-CS-77-633 (AIM-305, AD-A048 660), William Faught (thesis), *Motivation and Intensionality in a Computer Simulation Model*, 104 pages, October 1977. *****

634. STAN-CS-77-634, W. Hoffmann and B. N. Parlett, *A New Proof of Global Convergence for the Tridiagonal QL Algorithm*, 18 pages, October 1977. $2.00 **M**

635. STAN-CS-77-635, G. H. Golub, F. T. Luk and M. L. Overton, *A Block Lanczos Method to Computer the Singular Value and Corresponding Singular Vectrs of a Matrix*, 80 pages, October 1977. $2.00 **M**

636. STAN-CS-77-636 (AD-A048 788), Kenneth P. Bube, *C^m Convergence of Trigonometric Interpolants*, 25 pages, October 1977. $2.00 **M**

637. STAN-CS-77-637, Lyle Ramshaw, *On the Gap Structure of Sequences of Points on a Circle*, 26 pages, September 1977. $10.00 **+**

638. STAN-CS-77-638 (SU326 P30-57), Dianne Prost O'Leary, *A Generalized Conjugate Gradient Algorithm for Solving a Class of Quadratic Programming Problems*, 49 pages, October 1977. $10.00 **+**

639. STAN-CS-77-639 (AIM-306, AD-A053 175), Cordell Green and David Barstow, *On Program Synthesis Knowledge*, 63 pages, November 1977. $10.00 **H**

640. STAN-CS-77-640 (AIM-307, AD-A053 176), Zohar Manna and Richard Waldinger, *Structured Programming Without Recursion*, 10 pages, December 1977. *****

641. STAN-CS-77-641 (AIM-308, AD-A053 184), David Barstow (thesis), *Automatic Construction of Algorithms*, 220 pages, December 1977. *****

642. STAN-CS-77-642, Andrew C. Yao, *On Constructing Minimum Spanning Trees in k-Dimensional Spaces and Related Problems*, 37 pages, November 1977. $2.00 **M**

643. STAN-CS-77-643, Kunio Tanabe, *A Geometric Method in Nonlinear Programming*, 53 pages, December 1977. $10.00 **+**

644. STAN-CS-77-644, Bernard Mont-Reynaud (thesis), *Hierarchical Properties of Flows and the Determination of Inner Loops*, 164 pages, December 1977. $15.00 **+**

645. STAN-CS-77-645, Richard J. Lipton, Donald J. Rose, and Robert Endre Tarjan, *Generalized Nested Dissection*, 32 pages, December 1977. $10.00 **+**

646. STAN-CS-77-646 (AIM-309), C. G. Nelson and Derek C. Oppen, *Efficient Decision Procedures Based on Congruence Closure*, 5 pages, December 1977. $10.00 **+**

647. STAN-CS-78-647, Andrew C. Yao, *A Lower Bound to Palindrome Recognition by Probabilistic Turing Machines*, 20 pages, January 1978. $2.00 **M**

648. STAN-CS-78-648 (AD-A054 143), Donald E. Knuth, *Mathematical Typography*, 68 pages, January 1978. *****

649. STAN-CS-78-649 (HPP-78-1), Bruce G. Buchanan and Edward A. Feigenbaum, *DENDRAL and Meta-DENDRAL: Their Applications Dimension*, 25 pages,January 1978. b(M)

650. STAN-CS-78-650 (AD-A054 144), Thomas Lengauer and Robert E. Tarjan, *A Fast Algorithm for Finding Dominators in a Flow Graph*, 40 pages, February 1978. $10.00 **H**

651. STAN-CS-78-651 (AIM-310, AD-A058 601), Nachum Dershowitz and Zohar Manna, *Proving Termination with Multiset Orderings*, 30 pages, March 1978. $10.00 **+**

652. STAN-CS-78-652 (AIM-311), Greg Nelson and Derek C. Oppen, *A Simplifier Based on Efficient Decision Algorithms*, 20 pages, March 1978. $10.00 **+**

653. STAN-CS-78-653, Yossi Shiloach, *Multi-Terminal 0-1 Flow*, 18 pages, January 1978. $10.00 **+**

654. STAN-CS-78-654 (PB288520/AS), Yossi Shiloach, *The Two Paths Problem is Polynomial*, 23 pages, September 1977. $10.00 **+**

655. STAN-CS-78-655, Germund Dahlquist, *On Accuracy and Unconditional Stability of Linear Multistep Methods for Second Order Differential Equations*, 8 pages, March 1978. $10.00 **+**

656. STAN-CS-78-656, Michael T. Heath, *Numerical Algorithms for Nonlinearly Constrained Optimization*, 142 pages, March 1978. $15.00 **+**

657. STAN-CS-78-657 (AIM-312), John McCarthy, Masahiko Sato, Takeshi Hayashi, and Shigeru Igarashi, *On the Model Theory of Knowledge*, 12 pages, April 1978. $2.00 **M**

658. STAN-CS-78-658 (SLAC-205), Leonard J. Shustek (thesis), *Analysis and Performance of Computer Instruction Sets*, 177 pages, March 1978. *****

659. STAN-CS-78-659 (SLAC-206), John E. Zolnowsky (thesis), *Topics in Computational Geometry*, 63 pages, March 1978. $10.00 **+**

660. STAN-CS-78-660 (AIM-313), Bruce E. Shimano (thesis), *The Kinematic Design and Force Control of Computer Controlled Manipulators*, 135 pages, March 1978. $2.00 **M**

661. STAN-CS-78-661 (AD-A060 794), John R. Gilbert and Robert E. Tarjan, *Variations of a Pebble Game on Graphs*, 23 pages, April 1978. $2.00 **M**

662. STAN-CS-78-662, Andrew Chi-Chih Yao, *New Algorithms in Bin Packing*, 50 pages, May 1978. $2.00 **M**

663. STAN-CS-78-663 (AD-A060 793), Eric Grosse, *Software Restyling in Graphics and Programming Languages*, 30 pages, May 1978. $2.00 **M**

664. STAN-CS-78-664, Peter Bjorstad and Jorge Nocedal, *Analysis of a New Algorithm for One-Dimensional Minimization*, 18 pages, May 1978. $10.00 **+**

665. STAN-CS-78-665 (CSL-TR-152), T. M. McWilliams and L. C. Widdoes, Jr., *SCALD: Structured Computer-Aided Logic Design*, 39 pages, March 1978. $2.00 **M**

666. STAN-CS-78-666 (CSL-TR-153), T. M. McWilliams and L. C. Widdoes, Jr., *The SCALD Physical Design Subsystem*, 28 pages, March 1978. $2.00 **M**

667. STAN-CS-78-667 (HPP-78-7, AD-A060 795), Reid G. Smith and Randall Davis, *Distributed Problem Solving: The Contract Net Approach*, 27 pages, June 1978. $10.00 **+**

668. STAN-CS-78-668 (HPP-78-10), Alain Bonnet, *BAOBAB, A Parser for a Rule-Based System Using a Semantic Grammar*, 41 pages, June 1978. $10.00 **+**

669. STAN-CS-78-669, Paul K. Stockmeyer and F. Frances Yao, *On the Optimality of Linear Merge*, 11 pages, June 1978. $10.00 **+**

670. STAN-CS-78-670, Ronald L. Graham, Andrew C. Yao, and F. Frances Yao, *Information Bounds are Weak in the Shortest Distance Problem*, 39 pages, June 1978. $10.00 **+**

671. STAN-CS-78-671 (AIM-316), Jerrold Ginsparg (thesis), *Natural Language Processing in an Automatic Programming Domain*, 172 pages, June 1978. $15.00 **+**

672. STAN-CS-78-672, Tony F. C. Chan (thesis), *Comparison of Numerical Methods for Initial Value Problems*, 195 pages, June 1978. $2.00 **M**

673. STAN-CS-78-673 (SU36 P30-59), Tony F. C. Chan, William M. Coughran, Jr., Eric H. Grosse and Michael T. Heath, *A Numerical Library and its Support*, 22 pages, July 1978. $2.00 **M**

674. STAN-CS-78-674 (SU326 P30-60), Tony F. C. Chan and Roland Glowinski, *Finite Element Approximation and Iterative Solution of a Class of Mildly Non-Linear Elliptic Equations*, 76 pages, November 1978. $10.00 **+**

675. STAN-CS-78-675 (AIM-317), Donald E. Knuth, *Tau Epsilon Chi, a system for technical text*, 200 pages, November 1978. *****

676. STAN-CS-78-676 (SLACR-213), John Phineas Banning (thesis), *A Method for Determining the Side Effects of Procedure Calls*, 283 pages, November 1978. $2.00 **M**

677. STAN-CS-78-677, Frank M. Liang (editor), *Comprehensive Examinations in Computer Science, 1972-1978*, 238 pages, November 1978. *****

678. STAN-CS-78-678 (AIM-314), Derek C. Oppen, *Reasoning About Recursively Defined Data Structures*, 15 pages, November 1978. $10.00 **+**

679. STAN-CS-78-679, Walter Murray and Michael L. Overton, *Steplength Algorithms for Minimizing a Class of Nondifferentiable Functions*, 57 pages, November 1978. $10.00 **+**

680. STAN-CS-78-680, Connie J. Stanley, *Bibliography of Stanford Computer Science Reports, 1963-1978*, 100 pages, November 1978. *****

681. STAN-CS-78-681 (AD-A065 283), Louis Trabb Pardo (thesis), *Set Representation and Set Intersection*, 85 pages, December 1978. $2.00 **M**

682. STAN-CS-78-682 (AD-A065 265), Jacobo Valdes (thesis), *Parsing Flowcharts and Series-Parallel Graphs*, 233 pages, December 1978. $2.00 **M**

683. STAN-CS-78-683 (AD-A065 284), Robert Endre Tarjan, *Storing a Sparse Table*, 23 pages, December 1978. $2.00 **M**

684. STAN-CS-78-684 (SU326 P30-63), D. L. Boley and G. H. Golub, *The Matrix Inverse Eigenvalue Problem for Periodic Jacobi Matrices*, 18 pages, December 1978. $10.00 **+**

685. STAN-CS-78-685 (AD-A065 285), Franklin Tai-cheung Luk (thesis), *Sparse and Parallel Matrix Computations*, 168 pages, December 1978. $2.00 **M**

686. STAN-CS-78-686, Richard J. Lipton, Arnold L. Rosenberg and Andrew C. Yao, *External Hashing Schemes for Collections of Data Structures*, 33 pages, December 1978. $2.00 **M**

687. STAN-CS-78-687 (AIM-315, AD-A065 698), Richard Weyhrauch, *Prolegomena to a Theory of Formal Reasoning*, 41 pages, December 1978. $10.00 **+**

688. STAN-CS-78-688 (AIM-318), Zohar Manna, *Six Lectures on the Logic of Computer Programming*, 54 pages, December 1978. $10.00 **+**

689. STAN-CS-78-689 (AIM-319), Charles G. Nelson, *An $n^{\log n}$ Algorithm for the Two-Variable-Per-Constraint Linear Programming Satisfiability Problem*, 20 pages, December 1978. $10.00 **+**

690. STAN-CS-78-690 (AIM-320, AD-A065 558), Zohar Manna and Richard Waldinger, *A Deductive Approach to Program Synthesis*, 30 pages, December 1978. $10.00 **+**

691. STAN-CS-78-691 (AD-A066 058), Kenneth P. Bube (thesis), *The Construction of Initial Data for Hyperbolic Systems from Nonstandard Data*, 119 pages, November 1978. $15.00 **+**

692. STAN-CS-78-692 (HPP-77-39, AD-A066 147), Bruce G. Buchanan, Tom M. Mitchell, Reid G. Smith and C. Richard Johnson Jr., *Models of Learning Systems*, 38 pages, November 1978. $2.00 **M**

693. STAN-CS-78-693 (AD-A066 099), Douglas B. West, *A Class of Solutions to the Gossip Problem*, 61 pages, November 1978. $10.00 **+**

694. STAN-CS-78-694, Jonathan King (editor), *Computer Science at Stanford 1977-1978*, 27 pages, November 1978. *****

695. STAN-CS-78-695 (AIM-321, AD-A066 562), John McCarthy et al., *Recent Research in Artificial Intelligence and Foundations of Programming*, 94 pages, November 1978. $2.00 **M**

696. STAN-CS-78-696 (HPP-78-22, AD-A068 538), Reid G. Smith and Tom M. Mitchell, *Considerations for Microprocessor-Based Terminal Design*, 14 pages, November 1978. $2.00 **M**

697. STAN-CS-78-697, Walter Gander, *On the Linear Least Squares Problem with a Quadratic Constraint*, 120 pages, November 1978. $15.00 **+**

698. STAN-CS-78-698, Richard E. Sweet (thesis), *Empirical Estimates of Program Entropy*, 167 pages, November 1978. $2.00 **M**

699. STAN-CS-78-699 (HPP-78-23, AD-A068 539), James Bennett, Lewis Creary, Robert Engelmore and Robert Melosh, *SACON: A Knowledge-Based Consultant for Structural Analysis*, 65 pages, September 1978. $2.00 **M**

700. STAN-CS-78-700 (HPP-78-28, AD-A068 230), Reid Garfield Smith (thesis), *A Framework for Problem Solving in a Distributed Processing Environment*, 150 pages, December 1978. $2.00 **M**

701. STAN-CS-79-701, Mitch L. Model (thesis), *Monitoring System Behavior in a Complex Computational Environment*, 189 pages, January 1979. $2.00 **M**

702. STAN-CS-79-702, Yossi Shiloach, *An $O(n{*}I \log^2 I$* Maximum-Flow Algorithm), 33 pages, January 1979. $10.00 **+**

703. STAN-CS-79-703 (AD-A068 228), Bengt Aspvall and Yossi Shiloach, *A Polynomial Time Algorithm for Solving Systems of Linear Inequalities With Two Variables Per Inequality*, 25 pages, January 1979. $10.00 **+**

704. STAN-CS-79-704 (AD-A068 232), Roland A. Sweet, *A Survey of the State of Software for Partial Differential Equations*, 31 pages, January 1979. $10.00 **+**

705. STAN-CS-79-705, Robert Lewis (Scot) Drysdale, III (thesis), *Generalized Voronoi Diagrams and Geometric Searching*, 196 pages, January 1979. $2.00 **M**

706. STAN-CS-79-706, F. Francis Yao, *Graph 2-Isomorphism is NP-Complete*, 12 pages, January 1979. $10.00 **+**

707. STAN-CS-79-707, Chris Van Wyk and Donald E. Knuth, *A Programming and Problem-Solving Seminar*, 83 pages, January 1979. *****

708. STAN-CS-79-708, Andrew C. Yao, *An Analysis of a Memory Allocation Scheme for Implementing Stacks*, 18 pages, January 1979. $10.00 **+**

709. STAN-CS-78-709 (AD-A068 231), Mark R. Brown and Robert E. Tarjan, *Design and Analysis of a Data Structure for Representing Sorted Lines*, 50 pages, December 1978. $10.00 **+**

710. STAN-CS-79-710 (AD-A068 210), Lloyd Trefethen, *Numerical Computation of the Schwarz-Christoffel Transformation*, 42 pages, 1979. $10.00 **+**

711. STAN-CS-78-711, Tom Michael Mitchell (thesis), *Version Spaces: An Approach to Concept Learning*, 216 pages, December 1978. *****

712. STAN-CS-79-712 (AD-A068 393), Donald E. Knuth, *The Errata of Computer Programming*, 58 pages, January 1979. $10.00 **+**

713. STAN-CS-79-713, Gene Golub, Stephen Nash and Charles Van Loan, *A Hessenberg-Schur Method for the Problem AX + XB = C*, 50 pages, January 1979. $10.00 **+**

714. STAN-CS-79-714 (CSL-TN-160), Fernando Castaneda, Frederick Chow, Peter Nye, Dan Sleator and Gio Wiederhold, *PCFORT: A Fortran-to- Pcode Translator*, 99 pages, January 1979. $10.00 **H**

715. STAN-CS-79-715 (CSL-TN-161), Brent T. Hailpern and Bruce L. Hitson, *S-1 Architecture Manual*, January 1979. *****

716. STAN-CS-79-716 (AIM-322), Michael Georgeff, *A Framework for Control in Production Systems*, 35 pages, January 1979. $2.00 **M**

717. STAN-CS-79-717 (AIM-324), Robert Cartwright and John McCarthy, *Recursive Programs as Functions in a First Order Theory*, 32 pages, March 1979. $2.00 **M**

718. STAN-CS-79-718 (AIM-323), Shahid Mujtaba and Ron Goldman, *AL Users' Manual*, 136 pages, January 1979. ***** *Reissued in 1981. See STAN-CS-81-889.*

719. STAN-CS-79-719, Petter Bjorstad, Germund Dahlquist and Eric Grosse, *Extrapolation of Asymptotic Expansions by a Modified Aitken* d^*2-Formula*, 54 pages, February 1979. $2.00 **M**

720. STAN-CS-79-720, R. Glowinski, *On Grid Optimization for Boundary Value Problems*, 22 pages, February 1979. $10.00 **+**

721. STAN-CS-79-721, Andrew C. Yao and F. Frances Yao, *On Fault-Tolerant Networks for Sorting*, 20 pages, February 1979. $10.00 **H**

722. STAN-CS-79-722 (AD-A074 077), Gio Wiederhold and Ramez El-Masri, *A Structural Model for Database Systems* 57 pages, March 1979. *****

723. STAN-CS-79-723 (AD-A074 076), Edward H. Shortliffe, Bruce G. Buchanan and Edward A. Feigenbaum, *Knowledge Engineering for Medical Decision Making: a review of computer-based clinical decision aids*, 52 pages, February 1979. $2.00 **M**

724. STAN-CS-79-724 (AIM-325), John McCarthy, *First Order Theories of Individual Concepts and Propositions*, 19 pages, March 1979. *****

725. STAN-CS-79-725 (AIM-326, AD-A071 423), John McCarthy, *Ascribing Mental Qualities to*

Machines, 25 pages, March 1979. $2.00 **M**

726. STAN-CS-79-726, Andrew Chi-Chih Yao, *An Analysis of (h,k,l* -Shellsort), 55 pages, March 1979. $10.00 **+**

727. STAN-CS-79-727 (AIM-327), Robert Elliot Filman (thesis), *The Interaction of Observation and Inference*, 235 pages, March 1979. $20.00 **+**

728. STAN-CS-79-728, Yossi Shiloach, *Union-Member Algorithms for Non- Disjoint Sets*, 12 pages, January 1979. $10.00 **+**

729. STAN-CS-79-729 (AD-A068 229), Robert Endre Tarjan, *A Unified Approach to Path Problems*, 43 pages, April 1979. $10.00 **+**

730. STAN-CS-79-730, Frank M. Liang, *Qualifying Examinations in Computer Science, 1965-1978*, 238 pages, *****

731. STAN-CS-79-731 (PVG-11, AD-A071 900), D. C. Luckham, S. M. German, F. W. von Henke, R. A. Karp, P. W. Milne, D. C. Oppen, W. Polak, and W. L. Scherlis, *Stanford PASCAL Verifier User Manual*, April 1979. **M**

732. STAN-CS-79-732, Donald R. Woods, *Notes on Introductory Combinatorics*, 120 pages, April 1979. $2.00 **M**

733. STAN-CS-79-733, Andrew Chi-Chih Yao, *A Lower Bound to Finding Convex Hulls*, 22 pages, April 1979. $10.00 **+**

734. STAN-CS-79-734 (AD-A074 079), Robert Endre Tarjan, *Fast Algorithms for Solving Path Problems*, 49 pages, April 1979. $10.00 **+**

735. STAN-CS-79-735, J. H. Wilkinson, *Kronecker's Canonical Form and the QZ Algorithm*, 23 pages, April 1979. $10.00 **+**

736. STAN-CS-79-736, J. H. Wilkinson, *Note on the Practical Significance of the Drazin Inverse*, 20 pages, April 1979. $10.00 **+**

737. STAN-CS-79-737, Andrew C. Yao and F. Frances Yao, *On the Average- case Complexity of Selecting the k-th Best*, 45 pages, April 1979. $10.00 **+**

738. STAN-CS-79-738 (SU326 P30-65), Randall LeVeque, Germund Dahlquist and Dan Andree, *Computations Related to G-Stability of Linear Multistep Methods*, 27 pages, May 1979. $10.00 **+**

739. STAN-CS-79-739 (HPP-79-14, AD-A074 075), J. R. Quinlan, *Induction Over Large Data Bases*, 19 pages, May 1979. $10.00 **+**

740. STAN-CS-79-740 (PVG-12), R. S. Cartwright and D. C. Oppen, *The Logic of Aliasing*, 24 pages, May 1979. $10.00 **+**

741. STAN-CS-79-741, Lyle Harold Ramshaw (thesis), *Formalizing the Analysis of Algorithms*, 123 pages, June 1979. *****

742. STAN-CS-79-742 (HPP-79-12, AD-A074 078), Anne Gardner, *Handbook of Artificial Intelligence: Search*, 100 pages, June l979. *****

743. STAN-CS-79-743 (AIM-328), Juan Bulnes-Rozas (thesis), *GOAL: A Goal Oriented Command Language for Interactive Proof Construction*, 175 pages, June 1979. $15.00 **+**

744. STAN-CS-79-744 (CSL-TR-172, AD-A075 268), Hector Garcia-Molina (thesis), *Performance of Update Algorithms for Replicated Data in a Distributed Database*, 320 pages, June 1979. $15.00 **+**

745. STAN-CS-79-745 (AD-A076 264), Thomas Lengauer (thesis), *Upper and Lower Bounds on Time-Space Tradeoffs in a Pebble Game*, 82 pages, July 1979. $10.00 **+**

746. STAN-CS-79-746, Alan Borning (thesis), *ThingLab -- A Constraint- Oriented Simulation Laboratory*, 109 pages, July 1979. $2.00 **M**

747. STAN-CS-79-747 (AIM-329, AD-A076 872), David E. Wilkins (thesis), *Using Patterns and Plans to Solve Problems and Control Search*, 264 pages, June 1979. $2.00 **M**

748. STAN-CS-79-748 (AD-A075 376), David Y. Y. Yun and Fred G. Gustavson, *Fast Algorithms for Solving Toeplitz System of Equations and Finding Rational Interpolants*, 9 pages, July 1979. $10.00 **+**

749. STAN-CS-79-749 (HPP-79-17), William Clancey, James Bennett and Paul Cohen, *Applications-Oriented AI Research: Education*, 60 pages, July 1979. $2.00 **M**

750. STAN-CS-79-750 (AD-A075 171), Peter Gacs and Laszlo Lovasz, *Khachian's Algorithm for Linear Programming*, 12 pages, July 1979. $10.00 **+**

751. STAN-CS-79-751 (AIM-330), Zohar Manna and Amir Pnueli, *The Modal Logic of Programs*, 36 pages, September 1979. $2.00 **M**

752. STAN-CS-79-752, Michael Lockhart Overton (thesis), *Projected Lagrangian Algorithms for Nonlinear Minimax and l_1 Optimization*, 164 pages, July 1979. $15.00 **+**

753. STAN-CS-79-753, Andrew Chi-Chih Yao, *Should Tables Be Sorted?*, 36 pages, July 1979. $10.00 **+**

754. STAN-CS-79-754 (HPP-79-21, AD-A076 873), Anne Gardner, James Davidson and Terry A. Winograd, *Natural Language Understanding*, 100 pages, July 1979. $2.00 **M**

755. STAN-CS-79-755 (AIM-331), Elaine Kant (thesis), *Efficiency Considerations in Program Synthesis: A Knowledge-Based Approach*, 160 pages, July 1979. $2.00 **M**

756. STAN-CS-79-756 (HPP-79-22, AD-A076 875), James S. Bennett, Bruce G. Buchanan, Paul R. Cohen, and Fritz Fisher, *Applications-Oriented AI Research: Science and Mathematics*, 110 pages, July 1979. $2.00 **M**

757. STAN-CS-79-757 (HPP-79-23, AD-A075 402), Victor B. Clesielski, James S. Bennett and Paul R. Cohen, *Applications-Oriented AI Research: Medicine*, 40 pages, July 1979. $2.00 **M**

758. STAN-CS-79-758 (HPP-79-24, AD-A076 874), Robert Elschlager and Jorge Phillips, *Automatic Programming*, 100 pages, July 1979. $2.00 **M**

759. STAN-CS-79-759 (HPP-79-25), Alain Bonnet, *Schema-Shift Strategies for Understanding Structured Texts in Natural Language*, 40 pages, July 1979. $2.00 **M**

760. STAN-CS-79-760, R. L. Graham, A. C. Yao and F. F. Yao, *Some Monotonicity Properties of Partial Orders*, 21 pages, September 1979. $10.00 **+**

761. STAN-CS-79-761 (AD-A084 021), Douglas B. West, *Gossiping Without Duplicate Transmissions*, 7 pages, September 1979. $2.00 **M**

762. STAN-CS-79-762 (AIM-332, AD-A083 229), Donald E. Knuth, *METAFONT, a system for alphabet design*, 110 pages, September 1979. $2.00 **M**

763. STAN-CS-79-763 (AD-A076 876), Douglas B. West, *A Symmetric Chain Decomposition of L(4,n)*, 15 pages, September 1979. $10.00 **+**

764. STAN-CS-79-764, Andrew Chi-Chih Yao, *On the Time-Space Tradeoff for Sorting with Linear Queries*, 33 pages, September 1979. $10.00 **+**

765. STAN-CS-79-765 (AD-A083 192), Peter Gacs, *Relation Between the Complexity and the Probability of Large Numbers*, 8 pages, September 1979. $10.00 **+**

766. STAN-CS-79-766 (SU326 P30-69), J. Kautsky and N. K. Nichols, *Equidistributing Meshes with Constraints*, 27 pages, September 1979. $10.00 **+**

767. STAN-CS-79-767, Charles Van Loan, *On Stewart's Singular Value Decomposition for Partitioned Orthogonal Matrices*, 17 pages, September 1979. $2.00 **M**

768. STAN-CS-80-768, Peter Gacs and Leonid A. Levin, *Causal Networks on What Is a Deterministic Computation?*, 20 pages, October 1980. $10.00 **+**

769. STAN-CS-79-769, (AD-A083 432), William John Clancey (thesis), *Transfer of Rule- Based Expertise Through a Tutorial Dialogue*, 462 pages, September 1979. *****

770. STAN-CS-79-770 (PVG-13), Derek C. Oppen, *Pretty Printing*, 20 pages, October 1979. $2.00 **M**

771. STAN-CS-79-771 (HPP-79-29), Peter E. Friedland (thesis), *Knowledge-Based Experiment Design in Molecular Genetics*, 137 pages, August 1979. $2.00 **M**

772. STAN-CS-79-772 (AIM-333, AD-A086 504), Brian P. McCune (thesis), *Building Program Models Incrementally from Informal Descriptions*, 146 pages, October 1979. $15.00 **+**

773. STAN-CS-79-773 (AD-A083 170), Tony F. Chan, Gene H. Golub and Randal J. LeVeque, *Updating Formulae and a Pairwise Algorithm for Computing Sample Variances*, 19 pages, November 1979. $10.00 **+**

774. STAN-CS-79-774 (AD-A083 193), Gene H. Golub and Robert J. Plemmons, *Large Scale Geodetic Least Squares Adjustment by Dissection and Orthogonal Decomposition*, 33 pages, November 1979. $10.00 **+**

775. STAN-CS-79-775 (AD-A083 288), Persi Diaconis and Ronald Graham, *The Analysis of Sequential Experiments with Feedback to Subjects*, 48 pages, November 1979. $10.00 **+**

776. STAN-CS-79-776 (This paper supersedes STAN-CS-79-750 by Lovasz and Gacs), Bengt Aspvall and Richard E. Stone, *Khachiyan's Linear Programming Algorithm*, 13 pages, November 1979. $2.00 **M**

777. STAN-CS-79-777 (AD-A083 176), R. L. Graham and N. J. A. Sloane, *On Constant Weight Codes and Harmonious Graphs*, 17 pages, December 1979. $10.00 **+**

778. STAN-CS-79-778 (AD-A083 573), David Elliot Shaw, *A Hierarchical Associative Architecture for the Parallel Evaluation of Relational Algebraic Database Primitives*, 56 pages, October 1979. $10.00 **+**

779. STAN-CS-80-779, Zohar Manna and Richard Waldinger, *Problematic Features of Programming Languages: A Situational - Calculus Approach*, 70 pages, October 1979. $2.00 **M**

780. STAN-CS-80-780, Donald E. Knuth, *The Computer Modern Family of Typefaces*, 406 pages, January 1980. $2.00 **M**

781. STAN-CS-80-781, Jonathan J. King, *Exploring the Use of Domain Knowledge for Query Processing Efficiency*, 21 pages, December 1979. $10.00 **+**

782. STAN-CS-80-782, NEVER PRINTED.

783. STAN-CS-80-783 (PVG-14), Richard Alan Karp (thesis), *Proving Concurrent Systems Correct*, 151 pages, November 1979. $2.00 **M**

784. STAN-CS-80-784 (HPP-80-2), Mark Jeffrey Stefik (thesis), *Planning with Constraints*, 230 pages, January 1980. *****

785. STAN-CS-80-785 (PVG-15), Gerard Huet and Derek C. Oppen, *Equations and Rewrite Rules*, 52 pages, January 1980. $2.00 **M**

786. STAN-CS-80-786 (AD-A089 912), Donald E. Knuth, *Algorithms in Modern Mathematics and Computer Science*, 25 pages, January 1980. $2.00 **M**

787. STAN-CS-80-787, H. J. Symm and J. H. Wilkinson, *Realistic Error Bounds for a Simple*

Eigenvalue and its Associated Eigenvector, 22 pages, January 1980. $10.00 **+**

788. STAN-CS-80-788 (AIM-334, AD-AO86 574), John McCarthy, *Circumscription - A Form of Non-Monotonic Reasoning*, 15 pages, February 1980. $2.00 **M**

789. STAN-CS-80-789, D. C. Luckham and W. Polak, *ADA Exceptions: Specifications and Proof Techniques*, 19 pages, February 1980. $2.00 **M**

790. STAN-CS-80-790, Gio Wiederhold, *Databases in Healthcare*, 77 pages, March 1980. $2.00 **M**

791. STAN-CS-80-791,(CSL 78-166) C. R. Wilcox, M. L. Dageforde, and G. A. Jirak, (misnumbered as CS-80-790) *Mainsail Language Manual*, 247 pages, March 1980. $15.00 **+**

792. STAN-CS-80-792,(CSL 78-167) C. R. Wilcox, M. L. Dageforde, and G. A. Jirak, *Mainsail Implementation Overview*, 70 pages, March 1980. $10.00 **H**

793. STAN-CS-80-793, Avron Barr and James Davidson, *Representation of Knowledge*, 82 pages, March 1980. *

794. STAN-CS-80-794, Robert E. Tarjan, *Recent Developments in the Complexity of Combinatorial Algorithms*, 29 pages, March 1980. *

795. STAN-CS-80-795, Donald E. Knuth, *The Letter S*, 34 pages, April 1980. *

796. STAN-CS-80-796, Arthur Samuel, *Essential E*, 33 pages, March 1980. $2.00 **M**

797. STAN-CS-80-797, Hector Garcia Molina and Gio Wiederhold, 25 pages, April 1980. $10.00 **+**

798. STAN-CS-80-798, Robert Floyd and Jeffrey D. Ullman, *The Compilation of Regular Expressions into Integrated Circuits*, 29 pages, April 1980. $2.00 **M**

799. STAN-CS-80-799, Jerome Friedman, Eric Grosse, and Werner Stuetzle, *Multidimensional Additive Spline Approximation*, 22 pages, May 1980. $2.00 **M**

800. STAN-CS-80-800, Donald E. Knuth, *Deciphering a Linear Congruential Encryption*, 10 pages, April 1980. $10.00 **+**

801. STAN-CS-80-801, Ramez Aziz El-Masri (thesis), *On the Design, Use, and Integration of Data Models*, 228 pages, May 1980. $2.00 **M**

802. STAN-CS-80-802 (PVG-17), Wolfgang Heinz Polak (thesis), *Theory of Compiler Specification and Verification*, 288 pages, May 1980. $2.00 **M**

803. STAN-CS-80-803, Christopher John Van Wyk (thesis), *A Language for Typesetting Graphics*, 59 pages, May 1980. $2.00 **M**

804. STAN-CS-80-804 (AIM-336), Martin Brooks (thesis), *Determining Correctness by Testing*, 59 pages, May 1980. $2.00 **M**

805. STAN-CS-80-805 (AIM-339, AD-A091 081), Donald B. Gennery (thesis), *Modelling the Environment of an Exploring Vehicle by Means of Stereo Vision*, 151 pages, June 1980. $2.00 **M**

806. STAN-CS-80-806, William M. Coughran (thesis), *On the Approximate Solution of Hyperbolic Initial-Boundary Value Problems*, 177 pages, June 1980. $2.00 **M**

807. STAN-CS-80-807 (AD-A091 123), David W. Matula and Danny Dolev, *Path-Regular Graphs*, 39 pages, June 1980. $10.00 **+**

808. STAN-CS-80-808 (AIM-337, AD-A091 183), John McCarthy (Principal Investigator), Thomas Binford, David Luckham, Zohar Manna, Richard Weyhrauch (Associate Investigators), *Basic Research in Artificial Intelligence and Foundations of Programming*, 75

pages, May 1980. *****

809. STAN-CS-80-809 (AIM-338), Morgan S. Ohwovoriole (thesis), *An Extension of Screw Theory and its Application to the Automation of Industrial Assemblies*, 186 pages, April 1980. $15.00 **+**

810. STAN-CS-80-810 (AD-A091 124), J. Michael Steele and Andrew C. Yao, *Lower Bounds for Algebraic Decision Trees*, 12 pages, July 1980. $10.00 **+**

811. STAN-CS-80-811 (PVG-18, AD-A091 313), Steven M. German, *An Extended Semantic Definition of Pascal for Proving the Absence of Common Runtime Errors*, 57 pages, June 1980. $2.00 **M**

812. STAN-CS-80-812 (HPP-80-14), Edward A. Feigenbaum, *Knowledge Engineering: The Applied Side of Artificial Intelligence*, 14 pages, September 1980. $2.00 **M**

813. STAN-CS-80-813 (AIM-340), Hans Peter Moravec (thesis), *Obstacle Avoidance and Navigation in the Real World by a Seeing Robot Rover*, 174 pages, September 1980. $2.00 **M**

814. STAN-CS-80-814 (HPP-80-17, AD-A091 177), Janice S. Aikins (thesis), *Prototypes and Production Rules: A Knowledge Representation for Computer Consultations*, 204 pages, August 1980. $2.00 **M**

815. STAN-CS-80-815 (HPP-80-16), Edward H. Shortliffe, M.D., Ph.D., *Two Papers on Medical Computing -- (1) Medical Cybernetics: The Challenges of Clinical Computing, (2) Consultation Systems for Physicians: The Role of Artificial Intelligence Techniques*, 56 pages, July 1980. $2.00 **M**

816. STAN-CS-79-816, Robert L. Blum, M.D., *Automating the Study of Clinical Hypotheses on a Time-Oriented Data Base: The RX Project*, 12 pages, November 1979. $2.00 **M**

817. STAN-CS-79-817, Jeffrey Scott Vitter (thesis), *Analysis of Coalesced Hashing*, 111 pages, August 1980. $2.00 **M**

818. STAN-CS-80-818 (AIM-341, AD-A091 187), William Louis Scherlis (thesis), *Expression Procedures and Program Derivation*, 178 pages, August 1980. $2.00 **M**

819. STAN-CS-80-819 (AD-A091 180), Christopher Alan Goad (Thesis) *Computational Uses of the Manipulation of Formal Proofs*, 130 pages, August 1980. $2.00 **M**

820. STAN-CS-80-820 (HPP-80-22), William van Melle (thesis), *A Domain-Independent System That Aids in Constructing Knowledge-Based Consultation Programs*, 192 pages, June 1980. $2.00 **M**

821. STAN-CS-80-821, Douglas B. West and Craig A. Tovey, *Semiantichains and Unichain Coverings in Direct Products of Partial Orders*, 20 pages, September 1980. $10.00 **+**

822. STAN-CS-80-822, Bengt Aspvall (thesis), *Efficient Algorithms for Certain Satisfiability and Linear Programming Problems*, 59 pages, September 1980. $2.00 **M**

823. STAN-CS-80-823, David Elliot Shaw (thesis), *Knowledge-Based Retrieval on a Relational Database Machine*, 280 pages, August 1980. $2.00 **M**

824. STAN-CS-80-824, Tung Yun Mei, *LCCD, A Language for Chinese Character Design*, 63 pages, October 1980. $2.00 **M**

825. STAN-CS-80-825, C. P. Schnorr, *Refined Analysis and Improvements on Some Factoring Algorithms*, 30 pages, November 1980. $10.00 **+**

826. STAN-CS-80-826, Gio Wiederhold, Anne Beetem, and Garrett Short, *Database Approach to Communication in VLSI Design*, 11 pages, October 1980. $2.00 **M**

827. STAN-CS-80-827, Andrew Chi-Chih Yao, *On the Parallel Computation for the Knapsack*

Problem, 11 pages, November 1980. $2.00 **M**

828. STAN-CS-80-828, Donald E. Knuth and Michael F. Plass, *Breaking Paragraphs Into Lines*, 66 pages, November 1980. $2.00 **M**

829. STAN-CS-80-829, Bengt Aspvall and Frank Liang, *The Dinner Table Problem*, 13 pages, December 1980. $10.00 **+**

830. STAN-CS-80-830, David Matula, Yossi Shiloach and Robert Tarjan, *Two Linear-Time Algorithms for Five-Coloring a Planar Graph*, 23 pages, December 1980. $10.00 **+**

831. STAN-CS-80-831, Daniel D. K. Sleator (thesis), *An O(nmlogn* Algorithm for Maximum Network Flow), 81 pages, December l980. $2.00 **M**

832. STAN-CS-80-832, Danny Dolev, *Scheduling Wide Graphs*, 43 pages, December 1980. $10.00 **+**

833. STAN-CS-80-833, John Russell Gilbert (thesis), *Graph Separator Theorems and Sparse Gaussian Elimination*, 104 pages, December 1980. $15.00 **+**

834. STAN-CS-80-834, Petter E. Bjorstad (thesis), *Numerical Solution of the Biharmonic Equation*, 139 pages, December 1980. $2.00 **M**

835. STAN-CS-80-835, Eric H. Grosse (thesis), *Approximation and Optimization of Electron Density Maps*, 118 pages, December 1980. $2.00 **M**

836. STAN-CS-81-836, Zohar Manna and Amir Pnueli, *Temporal Verification of Concurrent Programs, Part I: The Temporal Framework for Concurrent Programs*, 70 pages, January 1981. $2.00 **M**

837. STAN-CS-81-837, Bruce G. Buchanan, *Research on Expert Systems*, 38 pages, February 1981. $2.00 **M**

838. STAN-CS-81-838, Peter Brown, *Dynamic Program Building*, 13 pages, February 1981. $2.00 **M**

839. STAN-CS-81-839, Arthur L. Samuel, *Short Waits*, 37 pages, February 1981. $2.00 **M**

840. STAN-CS-81-840, Donald E. Knuth, *Verification of Link-Level Protocols*, 6 pages, January 1981. $10.00 **+**

841. STAN-CS-81-841, Donald E. Knuth, *Huffman's Algorithm via Algebra*, 6 pages, March 1981. $10.00 **+**

842. STAN-CS-81-842, Michael R. Genesereth, *The Role of Plans In Intelligent Teaching Systems*, 19 pages, November 1980. *****

843. STAN-CS-81-843, Zohar Manna and Amir Pnueli, *Temporal Verification of Concurrent Programs, Part II: Proving Invariances*, 30 pages, March 1981. $2.00 **M**

844. STAN-CS-81-844, NEVER PRINTED.

845. STAN-CS-81-845, NEVER PRINTED.

846. STAN-CS-81-846, Danny Dolev, *The Byzantine Generals Strike Again*, 26 pages, March 1981. $10.00 **+**

847. STAN-CS-81-847, Henry F. Korth, *The Optimal Locking Problem in a Directed Acyclic Graph*, 6 pages, March 1981. $10.00 **+**

848. STAN-CS-81-848, Chih-sung Tang, *On the Problem of Inputting Chinese Characters*, 9 pages, April 1981. $2.00 **M**

849. STAN-CS-81-849,(CSL 81-205) Tohru Nishigaki, *Experiments on the Knee Criterion in a Multiprogrammed Computer System*, 28 pages, March 1981. $10.00 **+**

850. STAN-CS-80-850,(CSL 81-207) Alfred Z. Spector, *Performing Remote Operations Efficiently on a Local Computer Network*, 23 pages, December 1980. $2.00 **M**

851. STAN-CS-81-851, Gio Wiederhold, *Binding in Information Processing*, 41 pages, May 1981. $10.00 **+**

852. STAN-CS-81-852, Jeffrey D. Ullman, *A View of Directions in Relational Database Theory*, 9 pages, May 1981. $2.00 **M**

853. STAN-CS-81-853, David Maier and Jeffrey D. Ullman, *Connections in Acyclic Hypergraphs*, 10 pages, May 1981. $10.00 **+**

854. STAN-CS-81-854, D. Dolev and A. C. Yao, *On the Security of Public Key Protocols*, 22 pages, May 1981. $2.00 **M**

855. STAN-CS-81-855, Zohar Manna & Richard Waldinger, *Deductive Synthesis of the Unification Algorithm*, 51 pages, June 1981. $2.00 **M**

856. STAN-CS-81-856, Richard Paul Gabriel, (thesis) *An Organization for Programs in Fluid Domains*, 190 pages, June 1981. *****

857. STAN-CS-81-857, Jonathan Jay King, (thesis) *Query Optimization by Semantic Reasoning*, 128 pages, June 1981. $15.00 **+**

858. STAN-CS-81-858, Pan, V. Y., *The Bit Operation Complexity of Approximate Evaluation of Matrix and Polynomial Products Using Arithmetic*, 6 pages, June 1981. $10.00 **+**

859. STAN-CS-81-859, V. Y. Pan, *The Additive and Logical Complexities of Linear and Bilinear Arithmetic Algorithms*, 21 pages, June 1981. $10.00 **+**

860. STAN-CS-81-860, Daniel Boley, *Computing the Controllability/Observability Decomposition of a Linear Time-Invariant Dynamic System, A Numerical Approach*, 81 pages, June 1981. $10.00 **+**

861. STAN-CS-81-861, Rodney A. Brooks, (thesis) *Symbolic Reasoning Among 3-D Models and 2-D Images*, 181 pages, June 1981. $2.00 **M**

862. STAN-CS-81-862, V. Y. Pan *The Lower Bounds on the Additive Complexity of Bilinear Problems in Terms of Some Algebraic Quantities*, 4 pages, June 1981. $10.00 **+**

863. STAN-CS-81-863, Donald E. Knuth and Allan A. Miller, *A Programming and Problem-Solving Seminar*, 84 pages, June 1981. *****

864. STAN-CS-81-864, Jon Doyle, *Three Short Essays on Decisions, Reasons, and Logics*, 19 pages, June 1981. $2.00 **M**

865. STAN-CS-81-865, Chih-sung Tang, *Toward a Unified Logical Basis for Programming Languages*, 21 pages, June 1981. $2.00 **M**

866. STAN-CS-81-866,(CSL 81-208) Steven M. German, *Verifying the Absence of Common Runtime Errors in Computer Programs*, 179 pages, June 1981. $2.00 **M**

867. STAN-CS-81-867, Luckham, Larsen, Stevenson and von Henke, *ADAM - An Ada based Language for Multi-processing*, 71 pages, June 1981. $2.00 **M**

868. STAN-CS-81-868, Donald E. Knuth, *The Last Whole Errata Catalog*, 42 pages, July 1981. $2.00 **M**

869. STAN-CS-81-869, Carolyn E. Tajnai, *Stanford Computer Science Comprehensive Examinations, 1978/79-1980/81*, 225 pages, July 1981. $2.00 **M**

870. STAN-CS-81-870, Michael F. Plass (thesis), *Optimal Pagination Techniques for Automatic Typesetting Systems*, 77 pages, June 1981. $2.00 **M**

871. STAN-CS-81-871, Howard W. Trickey, *Good Layouts for Pattern Recognizers*, 15 pages,

August 1981. *****

872. STAN-CS-81-872, Zohar Manna and Pierre Wolper, *Synthesis of Communicating Processes from Temporal Logic Specifications*, 28 pages, September 1981. $10.00 **+**

873. STAN-CS-81-873, Richard William Carr, *Virtual Memory Management*, 238 pages, December 1981. $2.00 **M**

874. STAN-CS-81-874, Alfred Z. Spector, *Multiprocessing Architectures for Local Computer Networks*, 125 pages, August 1981. $2.00 **M**

875. STAN-CS-81-875, T. C. Hu and M. T. Shing, *Computation of Matrix Chain Products, Part I, Part II*, 124 pages, September 1981. $2.00 **M**

876. STAN-CS-81-876, Danny Dolev and Howard Trickey, *On Linear Area Embedding of Planar Graphs*, 21 pages, September 1981. $2.00 **M**

877. STAN-CS-81-877, Zohar Manna, *Verification of Sequential Programs: Temporal Axiomatization*, 45 pages, September 1981.endpubdate $10.00 **+**

878. STAN-CS-81-878, David Maier and Jeffrey D. Ullman, *Maximal Objects and the Semantics of Universal Relation Databases*, 10 pages, October 1981. $2.00 **M**

879. STAN-CS-81-879, Larry M. Masinter, *Interlisp-VAX: A Report* 12 pages, October 1981. *****

880. STAN-CS-81-880, Ernst W. Mayr, *Well Structured Parallel Programs Are Not Easier to Schedule*, 17 pages, October 1981. $2.00 **M**

881. STAN-CS-81-881, Jeffrey D. Ullman, *The U.R. Strikes Back*, 15 pages, October 1981. $10.00 **+**

882. STAN-CS-81-882, V. Pan, *Fast Matrix Multiplication Without APP Algorithms*, 30 pages, October 1981. $10.00 **+**

883. STAN-CS-81-883, P. Pepper, *On Program Transformations for Abstract Data Types and Concurrency*, 37 pages, October 1981. $10.00 **+**

884. STAN-CS-81-884, Stefano Ceri, Shamkant Navathe, Gio Wiederhold, *Optimal Design of Distributed Databases*, 48 pages, December 1981. $2.00 **M**

885. STAN-CS-81-885, van Melle, Scott, Bennett, Peairs, *The EMYCIN Manual*, 143 pages, October 1981. $2.00 **M**

886. STAN-CS-81-886, Donald E. Knuth, *The Concept of a Meta-Font*, 12 pages, October 1981. $2.00 **M**

887. STAN-CS-81-887, Ronald Graham and Frances Yao, *Finding the Convex Hull of Simple Polygon*, 9 pages, November 1981. $10.00 **+**

888. STAN-CS-81-888, William D. Gropp, *Numerical Solution of Transport Equations*, 108 pages, December 1981. $15.00 **+**

889. STAN-CS-81-889, Shahid Mujtaba, Ron Goldman, *AL Users Manual*, 168 pages, December 1981. $2.00 **M**

890. STAN-CS-81-890, Robert L. Higdon, *Bounday Conditions for Hyperbolic Systems of Partial Differential Equations Having Multiple Time Scales* 136 pages, August 1981. $2.00 **M**

891. STAN-CS-81-891,(CSL 81-222) T.G. Dietterich and B. G. Buchanan, *The Role of the Critic in Learning Systems*, 23 pages, December 1981. $2.00 **M**

892. STAN-CS-82-892, Gabriel M. Kuper, *An Algorithm for Reducing Acyclic Hypergraphs*, 9 pages, January 1982. $10.00 **+**

893. STAN-CS-82-893, Lawrence Paulson, *A Compiler Generator for Semantic Grammars*, 166 pages, December 1981. $2.00 **M**

894. STAN-CS-82-894, William J. Clancey, *Methodology for Building an Intelligent Tutoring System*, 55 pages, October 1981. $2.00 **M**

895. STAN-CS-82-895, Gordon S. Novak, Jr., *GLISP Users Manual*, 38 pages, January 1982. $2.00 **M**

896. STAN-CS-82-896, William J. Clancey, *The Epistemology of a Rule-Based Expert System: A Framework for Explanation*, 61 pages, November 1981. $2.00 **M**

897. STAN-CS-82-897, Christopher Goad, *Automatic Construction of Special Purpose Programs*, 15 pages, January 1982. $2.00 **M**

898. STAN-CS-82-898, Whang, Wiederhold, Sagalowicz, *Separability as a Physical Database Design Methodology*, 62 pages, October 1981. $10.00 **+**

899. STAN-CS-82-899, John H. Bolstad, (thesis), *An Adaptive Finite Difference Method for Hyperbolic Systems in One Space Dimension*, 175 pages, February 1982. $2.00 **M**

900. STAN-CS-82-900, Robert L. Blum, (thesis) *Discovery and Representation of Causal Relationships from a Large Time-Oriented Clinical Database: The RX Project*, 264 pages, January 1982. $2.00 **M**

901. STAN-CS-82-901, David R. Fuchs and Donald E. Knuth, *Optimal Font Caching*, 19 pages, March 1982. $2.00 **M**

902. STAN-CS-82-902, Zohar Manna and Richard Waldinger, *Special Relations in Program-Synthetic Deduction*, 75 pages, March 1982. $2.00 **M**

903. STAN-CS-82-903, John McCarthy, *Coloring Maps and the Kowalski Doctrine*, 8 pages, April 1982. $2.00 **M**

904. STAN-CS-82-904, Randall John LeVeque (thesis), *Time-Split Methods for Partial Differential Equations*, 102 pages, April 1982. $15.00 **+**

905. STAN-CS-82-905, Lloyd N. Trefethen, *Wave Propagation and Stability for Finite Difference Schemes*, 207 pages, April 1982. $15.00 **+**

906. STAN-CS-82-906, Stephen G. Nash, *Truncated-Newton Methods*, 120 pages, May 1982. $15.00 **+**

907. STAN-CS-82-907, Ernst W. Mayr, *Combinatorial Algorithms I*, 83 pages, May 1982. $2.00 **M**

908. STAN-CS-82-908,(HPP-81-2) William J. Clancey and Reed Letsinger, *Neomycin-Reconfiguring A Rule-Based Expert System for Application to Teaching*, 12 pages, May 1982. $2.00 **M**

909. STAN-CS-82-909, (HPP-82-7) Bob London and Willam J. Clancey, *Plan Recognition Strategies in Student Modeling: Prediction and Description*, 13 pages, May 1982. $10.00 **+**

910. STAN-CS-82-910, (HPP-82-8) William J. Clancey and Bruce G. Buchanan, *Exploration of Teaching and Problem - Solving Strategies, 1979-1982*, 17 pages, May 1982. $2.00 **M**

911. STAN-CS-82-911, Barbara J. Roberts and Irris Marashian, *Bibliography of Stanford Computer Science Reports 1963-1982*, 59 pages, May 1982. $2.00 **M**

912. STAN-CS-82-912, Moshe Y. Vardi, *The Implication and Finite Implication for Typed Template Dependencies*, 35 pages, May 1982. $10.00 **+**

913. STAN-CS-82-913 (HPP-82-10), Thomas Dietterich, Bob London, Kenneth Clarkson and Geoff Dromey, *Learning and Inductive Inference*, 207 pages, May l982. $2.00 **M**

914. STAN-CS-82-914, Gu Guoan and John Hobby, *Using String Mechanisms to Compress Chinese Characters*, 15 pages, April 1982. $2.00 **M**

915. STAN-CS-82-915, Zohar Manna and Amir Pnueli, *Verification of Concurrent Programs; Proving Eventualities by Well-Founded Ranking*, 25 pages, June 1982. $10.00 **+**

916. STAN-CS-82-916, Samuel W. Bent (thesis), *Dynamic Weighted Data Structures*, 80 pages, June 1982. $10.00 **+**

917. STAN-CS-82-917 (thesis), Mohamed Shahid Mujtaba, *Motion Sequencing of Manipulators*, 307 pages, July 1982. b(*)

918. STAN-CS-82-918, Douglas E. Appelt (thesis), *Planning Natural-Language Utterances to Satisfy Multiple Goals*, 188 pages, December 1981. $2.00 **M**

919. STAN-CS-82-919, (CSL 80-190) David Wall (thesis), *Mechanisms for Broadcast and Selective Broadcast*, 122 pages, November 1982. $2.00 **M**

920. STAN-CS-82-920, Teresa L. Roberts (thesis), *Evaluation of Text Editors*, 188 pages, December l981. $2.00 **M**

921. STAN-CS-82-921, J. Kenneth Salisbury (thesis), *Kinematic and Force Analysis of Articulated Hands*, 106 pages, July 1982. *****

922. STAN-CS-82-922 (HPP-81-5), Motoi Suwa, A. Carlisle Scott and Edward H. Shortliffe, *An Approach to Verifying Completeness and Consistency in a Rule-Based Expert System*, 26 pages, June 1982. $2.00 **M**

923. STAN-CS-82-923, Jerold W. Wallis and Edward H. Shortliffe, *Explanatory Power for Medical Expert Systems: Studies in the Representation of Causal Relationships for Clinical Consultations*, 44 pages, July 1982. $2.00 **M**

924. STAN-CS-82-924, Marsha J. Berger (thesis), *Adaptive Mesh Refinement for Hyperbolic Partial Differential Equations*, 123 pages, August l982. $15.00 **+**

925. STAN-CS-82-925, Pierre L. Wolper (thesis), *Synthesis of Communicating Processes from Temporal Logic Specifications*, 120 pages, August 1982. $2.00 **M**

926. STAN-CS-82-926 (HPP-82-14), Bruce G. Buchanan and Richard O. Duda, *Principles of Rule-Based Expert Systems*, 58 pages, August 1982. $2.00 **M**

927. STAN-CS-82-927, Jeffrey D. Ullman, *Combining State Machines and Regular Expressions for Automatic Synthesis of VLSI Circuits*, 14 pages, September 1982. $2.00 **M**

928. STAN-CS-82-928, Kuhn, Wiederhold, Rodnick, Ramsey-Klee, Benett and Beck, *Automated Ambulatory Medical Record Systems in the U.S.*, 70 pages, August l982. $10.00 **+**

929. STAN-CS-82-929, David Maier and Jeffrey D. Ullman, *Fragments of Relations*, 11 pages, September 1982. $10.00 **+**

930. STAN-CS-82-930 (AIM-347), Henry Harlyn Baker, *Depth from Edge and Intensity Based Stereo*, 99 pages, September 1982. $2.00 **M**

931. STAN-CS-82-931 (HPP-82-13), Aikins, Kunz, Shortliffe and Fallat, *PUFF: An Expert System for Interpretation of Pulmonary Function Data*, 22 pages, August 1982. $2.00 **M**

932. STAN-CS-82-932 (HPP-82-3), Edward H. Shortliffe and Lawrence M. Fagan, *Expert Systems Research: Modeling the Medical Decision Making Process*, 27 pages, August 1982. $2.00 **M**

933. STAN-CS-82-933, Shmuel T. Klein and Eli Shamir, *An Algorithmic Method for Studying Percolation Clusters*, 13 pages, September 1982. $10.00 **+**

934. STAN-CS-82-934 (HPP-82-16), Barr, Cohen and Fagan *Understanding Spoken Language*, 52 pages, September 1982. *****

935. STAN-CS-82-935 (HPP-82-17), Tappel, Westfold, and Barr, *Programming Languages for AI Research*, 90 pages, September 1982. *****

936. STAN-CS-82-936 (HPP-82-18), Paul R. Cohen, *Models of Cognition*, 87 pages, September 1982. *****

937. STAN-CS-82-937 (HPP-82-19), Ballantyne, Bledsoe, Doyle, Moore, Pattis, and Rosenschein, *Automatic Deduction*, 64 pages, September 1982. *****

938. STAN-CS-82-938 (HPP-82-20), Takeo Kanade, *Vision*, 220 pages, September 1982. *****

939. STAN-CS-82-939 (HPP-82-21), Paul R. Cohen, *Planning and Problem Solving*, 61 pages, September 1982. *****

940. STAN-CS-82-940 Ullman, Vardi and Maier, *The Equivalence of Universal Relation Definitions*, 27 pages, September 1982. $10.00 **+**

941. STAN-CS-82-941 (AIM-348), Paul A. Martin, (thesis), *Integrating Local Information to Understand Dialog*, 131 pages, October 1982. $2.00 **M**

942. STAN-CS-82-942 Brent T. Hailpern, (thesis), *Verifying Concurrent Processes Using Temporal Logic*, 114 pages, August 1980. $2.00 **M**

943. STAN-CS-82-943 Donald R. Woods, (thesis), *Drawing Planar Graphs*, 58 pages, June 1981. $2.00 **M**

944. STAN-CS-82-944, Henry Korth, Gabriel Kuper, Jeffrey Ullman, *System/U: A Database System based on the Universal Relation Assumption*, 17 pages, January 1983. $2.00 **M**

945. STAN-CS-82-945 (CSL Technical Report 206), Willy Zwaenepoel, Keith A. Lantz, *Perseus: Retrospective on a Portable Operating System*, 8 pages, February 1983. $2.00 **M**

946. STAN-CS-82-946, Erik James Gilbert (thesis), *Algorithm Partitioning Tools for a High-Performance Multiprocessor*, 133 pages, February 1983. $15.00 **+**

947. STAN-CS-82-947, Neil C. Rowe, *Modelling Degrees of Item Interest for a General Database Query System*, 37 pages, October 1982. $10.00 **+**

948. STAN-CS-82-948, Neil C. Rowe, *Three Papers on Rule-Based Estimation of Statistics on Databases*, 38 pages, October 1982. $2.00 **M**

949. STAN-CS-82-949, Andrei Z. Broder, *The r-Stirling Numbers*, 22 pages, October 1982. $10.00 **+**

950. STAN-CS-82-950 (AIM-349), Winston, Binford, Katz, Lowry, *Learning Physical Description from Functional Definitions, Examples, and Precedents*, 25 pages, January 1983. $2.00 **M**

951. STAN-CS-82-951, Vaughan Pratt, *Five Paradigm Shifts in Programming Language Design and Their Realization in Viron, a Dataflow Programming Environment*, 9 pages, November 1982. $2.00 **M**

952. STAN-CS-82-952, Ben Moszkowski, *A Temporal Logic for Multi-Level Reasoning about Hardware*, 25 pages, November 1982. $10.00 **+**

953. STAN-CS-82-953 (HPP-82-30), Bruce G. Buchanan, *Partial Bibliography of Work on Expert Systems*, 15 pages, December 1982. $2.00 **M**

954. STAN-CS-82-954, Zohar Manna and Amir Pnueli, *How to Cook a Temporal Proof System for Your Pet Language*, 14 pages, November 1982. $2.00 **M**

955. STAN-CS-82-955 (AIM-350), Ron Goldman (thesis), *Design of an Interactive Manipulator Programming Environment*, 149 pages, December 1982. $2.00 **M**

956. STAN-CS-82-956 (HPP-82-29), Avron Barr, *Artificial Intelligence: Cognition as Computation*, 28 pages, August 1982. $2.00 **M**

957. STAN-CS-82-957, Navathe, Ceri, Wiederhold, and Dou, *Vertical Partitioning for Physical and Distribution Design of Databases*, 33 pages, January 1983. $10.00 **+**

958. STAN-CS-83-958 (CSL Technical Report 235), Keith Lantz, David Cheriton, William Nowicki, *Third Generation Graphics for Distributed Systems*, 40 pages, February 1983. $2.00 **M**

959. STAN-CS-83-959, Kevin Karplus (thesis), *CHISEL - An Introduction to the Programming Language C for VLSI Layout*, 137 pages, January 1983. $2.00 **M**

960. STAN-CS-82-960, Ignacio Andres Zabala-Salelles (thesis), *Interfacing with Graphic Objects*, 146 pages, December 1982. $2.00 **M**

961. STAN-CS-83-961 (AIM-351), R. David Arnold (thesis), *Automated Stereo Perception*, 130 pages, February l983. $2.00 **M**

962. STAN-CS-83-962, Kathryn A. Berg, *Bibliography of Stanford Computer Science Reports, l963-l983*, 65 pages, March l983. $2.00 **M**

963. STAN-CS-83-963, Joseph Halpern, Zohar Manna and Ben Moszkowski, *A Hardware Semantics Based on Temporal Intervals*, 26 pages, March 1983. $10.00 **+**

964. STAN-CS-83-964, Zohar Manna and Amir Pnueli, *Proving Precedence Properties: The Temporal Way*, 38 pages, October 1982. $10.00 **+**

965. STAN-CS-83-965, Pijush K. Ghosh, *An Approach to Type Design and Text Composition in Indian Scripts*, 131 pages, April 1983. $2.00 **M**

966. STAN-CS-83-966, Pijush K. Ghosh and Charles A. Bigelow, *A Formal Approach to Lettershape Description for Type Design*, 51 pages, May 1983. $2.00 **M**

967. STAN-CS-83-967, Zohar Manna and Amir Pnueli, *Verification of Concurrent Programs: A Temporal Proof System*, 92 pages, June 1983. $2.00 **M**

968. STAN-CS-83-968, Kyu-Young Whang (thesis), *A Physical Database Design Methodology Using the Property of Separability*, 271 pages, June 1983. $2.00 **M**

969. STAN-CS-83-969, Ben Moszkowski and Zohar Manna, *Reasoning in Interval Temporal Logic*, 18 pages, July 1983. $2.00 **M**

970. STAN-CS-83-970, Ben Moszkowski (thesis), *Reasoning about Digital Circuits*, 146 pages, July 1983. $2.00 **M**

971. STAN-CS-83-971, Lynn Ruggles, *Letterform Design Systems*, 24 pages, July 1983. $10.00 **+**

972. STAN-CS-83-972, A. Karlin, H. Trickey, J. Ullman, *Experience with a Regular Expression Compiler*, 23 pages, July 1983. $2.00 **M**

973. STAN-CS-83-973, David Cheriton and Willy Zwaenepoel, *The Distributed V Kerneel and Its Performance for Diskless Workstations*, 12 pages, July 1983. $2.00 **M**

974. STAN-CS-83-974, Gu Guoan and John Hobby, *A Chinese Meta-Font*, 22 pages, July 1983. $10.00 **+**

975. STAN-CS-83-975, Neil C. Rowe (thesis), *Rule-Based Statistical Calculations on a Database Abstract*, 167 pages, July 1983. $2.00 **M**

976. STAN-CS-83-976, Catriel Beeri and Moshe Vardi, *On Acyclic Database Decompositions*, 11 pages, July 1983. $10.00 **+**

977. STAN-CS-83-977, Franklin Mark Liang (thesis), *Word Hy-phen-a-tion by Com-put-er*, 90 pages, August 1983. $2.00 **M**

978. STAN-CS-83-978, Donald E. Knuth, *Lessons Learned from METAFONT*, 22 pages, August 1983. $2.00 **M**

979. STAN-CS-83-979, M. H. Graham, A. O. Mendelzon, M. Y. Vardi, *Notions of Dependency*

Satisfaction, 35 pages, August 1983. $2.00 **M**

980. STAN-CS-83-980, Donald E. Knuth, *The WEB System of Structured Documentation*, 206 pages, September 1983. **M**

981. STAN-CS-83-981, Donald E. Knuth, *Literate Programming*, 15 pages, September 1983. $2.00 **M**

982. STAN-CS-83-982, Daniel H. Greene (thesis), *Labelled Formal Languages and Their Uses*, 150 pages, August 1983. $15.00 **+**

983. STAN-CS-83-983, Jeffrey D. Ullman, *A Communication-Time Tradeoff*, 11 pages, August 1983. $10.00 **+**

984. STAN-CS-83-984, (HPP-83-31) Harold Brown, Christopher Tong and Gordon Foyster, *Palladio: An Exploratory Environment for Circuit Design*, 48 pages, July 1983. $2.00 **M**

985. STAN-CS-83-985, Arthur L. Samuel, *First Grade Tex*, 36 pages, November 1983. $2.00 **M**

986. STAN-CS-83-986, Paul R. Cohen, *Heuristic Reasoning about Uncertainty: An Artificial Intelligence Approach*, 200 pages, September 1983. $2.00 **M**

987. STAN-CS-83-987, Jeffrey D. Ullman, *Some Thoughts about Supercomputer Organization*, 17 pages, October 1983. $2.00 **M**

988. STAN-CS-83-988, Harry George Mairson, *The Program Complexity of Searching a Table*, 85 pages, November 1983. $2.00 **M**

989. STAN-CS-83-989, Donald E. Knuth and Joseph S. Weening, *A Programming and Problem-Solving Seminar*, 93 pages, December 1983. $2.00 **M**

990. STAN-CS-83-990, John D. Hobby and Donald E. Knuth, *A Programming and Problem-Solving Seminar*, 61 pages, December 1983. $2.00 **M**

991. STAN-CS-83-991, Moshe Morgensteren and Eli Shamir, *Parallel Algorithms for Arithmetics, Irreducibility and Factoring of GFq-Polynomials*, 10 pages, December 1983. $2.00 **M**

992. STAN-CS-83-992, Jussi Ketonen and Joseph S. Weening, *The Language of an Interactive Proof Checker*, 34 pages, December 1983. $2.00 **M**

993. STAN-CS-83-993, Amy Lansky (thesis), *Specification and Analysis of Concurrency*, 290 pages, December 1983. $2.00 **M**

994. STAN-CS-83-994, Daniel M. Chapiro, *Sorting by Recursive Partitioning*, 32 pages, December 1983. $2.00 **M**

995. STAN-CS-83-995, (HPP-83-17) William J. Clancey, *The Advantages of Abstract Control Knowledge in Expert System Design*, 19 pages, November 1983. $2.00 **M**

996. STAN-CS-83-996, (HPP-83-41) Diane Warner Hasling, William J. Clancey, and Glenn Rennels, *Strategic Explanations for a Diagnostic Consultation System*, 29 pages, November 1983. $2.00 **M**

997. STAN-CS-83-997, (HPP-83-42) William J. Clancey, *GUIDON*, 13 pages, November 1983. $2.00 **M**

998. STAN-CS-83-998, (HPP-83-40) Benoit Mulsant and David Servan-Schreiber, *Knowledge Engineering: A Daily Activity of a Hospital Ward*, 41 pages, December 1983. $10.00 **+**

999. STAN-CS-84-999, Jeffrey Ullman, Harry Mairson, Danny Dolev, and David Maier, *Correcting Faults in Write-Once Memory*, 5 pages, January 1984. $10.00 **+**

1000. STAN-CS-84-1000, Jeffrey D. Ullman, *Implementation of Logical Query Languages for Databases*, 41 pages, May 1984. $10.00 **+**

1001. STAN-CS-84-1001, James F. Brinkley, *Ultrasonic Three-Dimensional Organ Modelling*, 141 pages, March 1984. $2.00 **M**

1002. STAN-CS-84-1002, Allen Van Gelder, *A Satisfiability Tester for Non-Clausal Propositional Calculus*, 14 pages, March 1984. $2.00 **M**

1003. STAN-CS-84-1003, Richard Anderson and Ernst Mayr, *Parallelism and Greedy Algorithms*, 17 pages, April 1984. $2.00 **M**

1004. STAN-CS-84-1004, Leslie M. Goldschlager, *A Computational Theory of Higher Brain Function*, 29 pages, April 1984. $2.00 **M**

1005. STAN-CS-84-1005, Zohar Manna and Amir Pnueli, *Adequate Proof Principle for Invariance and Liveness Properties of Concurrent Programs*, 35 pages, May 1984. $2.00 **M**

1006. STAN-CS-84-1006, Jussi Ketonen and Joseph S. Weening, *EKL--An Interactive Proof Checker User's Reference Manual*, 55 pages, June 1984. $2.00 **M**

1007. STAN-CS-84-1007, Richard P. Gabriel and John McCarthy, *Queue-based Multi-processing Lisp*, 35 pages, June 1984. $2.00 **M**

1008. STAN-CS-84-1008, Jorge Phillips (thesis), *Self-Described Programming Environments--An Application of a Theory of Design to Programming Systems*, 262 pages, March 1983. $2.00 **M**

1009. STAN-CS-84-1009, Jeffrey D. Ullman and Yehoshua Sagiv, *Complexity of a Top-Down Capture Rule*, 35 pages, July 1984. $2.00 **M**

1010. STAN-CS-84-1010, Edward D. Lazowska, John Zahorjan, David R. Cheriton and Willy Zwaenepoel, *File Access Performance of Diskless Workstations*, 29 pages, August 1984. $2.00 **M**

1011. STAN-CS-84-1011, David R. Cheriton and Willy Zwaenepoel, *One-to-Many Interprocess Communication in the V-System*, 8 pages, August 1984. $2.00 **M**

1012. STAN-CS-84-1012, Yonathan Malachi, Zohar Manna, and Richard Waldinger, *TABLOG: The Deductive-Tableau Programming Language*, 16 pages, June 1984. $2.00 **M**

1013. STAN-CS-84-1013, Jacques Desarmenien, *How to Run Tex in French*, 42 pages, August 1984. $10.00 **+**

1014. STAN-CS-84-1014, Richard Anderson and Ernst W. Mayr, *A P-Complete Problem and Approximations to It*, 12 pages, September 1984. $10.00 **+**

1015. STAN-CS-84-1015, Lefteris Kirousis and Christos Papadimitriou, *The Complexity of Recognizing Polyhedral Scenes*, 33 pages, August 1984. $2.00 **M**

1016. STAN-CS-84-1016, Christos Papadimitriou and John Tsitsiklis, *Intractable Problems in Control Theory*, 23 pages, August 1984. $2.00 **M**

1017. STAN-CS-84-1017, Christos Papadimitriou and John Tsitsiklis, *The Throughput of a Precedence-Based Queuing Discipline*, 9 pages, August 1984. $10.00 **+**

1018. STAN-CS-84-1018, William J. Clancey, *Classification Problem Solving*, 27 pages, September 1984. $2.00 **M**

1019. STAN-CS-84-1019, Vladimir Lifschitz, *Some Results on Circumscription*, 14 pages, September 1984. $2.00 **M**

1020. STAN-CS-84-1020, David Lowe (thesis), *Perceptual Organization and Visual Recognition*, 152 pages, September 1984. $15.00 **+**

1021. STAN-CS-84-1021, John C. Kunz (thesis), *Use of Artificial Intelligence and Simple Mathematics*, 182 pages, July 1984. $15.00 **+**

1022. STAN-CS-84-1022, Kurt Konolige (thesis), *A Deduction Model of Belief and its Logics*, 312 pages, August 1984. $2.00 **M**

1023. STAN-CS-84-1023, Jean Gordon and Edward H. Shortliffe, *A Method for Managing Evidential Reasoning in a Hierarchical Hypothesis Space*, 41 pages, September 1984. $10.00 **+**

1024. STAN-CS-84-1024, Eli Upfal and Avi Wigderson, *How to Share Memory in a Distributed System*, 19 pages, October 1984. $10.00 **+**

1025. STAN-CS-84-1025, David Helmbold and Ernst Mayr, *Fast Scheduling Algorithms on Parallel Computers*, 31 pages, November 1984. $2.00 **M**

1026. STAN-CS-84-1026, Daniel M. Chapiro (thesis), *Globally-Asynchronous Locally-Synchronous Systems*, 136 pages, November 1984. $2.00 **M**

1027. STAN-CS-84-1027, Donald E. Knuth, *A torture test for TeX*, 142 pages, December 1984. $2.00 **M**

1028. STAN-CS-84-1028, Peter Hochschild, Ernst Mayr, and Alan Siegel, *Parallel Graph Algorithms*, 57 pages, December 1984. $2.00 **M**

1029. STAN-CS-85-1029, Matthew L. Ginsberg, *Counterfactuals*, 13 pages, December 1984. $2.00 **M**

1030. STAN-CS-84-1030, Thomas G. Dietterich (thesis), *Constraint Propagation Techniques for Theory-Driven Data Interpretation*, 180 pages, December 1984. $2.00 **M**

1031. STAN-CS-84-1031, Gregory F. Cooper (thesis), *NESTOR: A Computer-Based Medical Diagnostic Aid that Integrates Causal and Probabilistic Knowledge*, 251 pages, December 1984. $2.00 **M**

1032. STAN-CS-84-1032, M. R. Genesereth, M. L. Ginsberg and J. S. Rosenschein, *Solving the Prisoner's Dilemma*, 12 pages, November 1984. $2.00 **M**

1033. STAN-CS-84-1033, Jay L. Gischer (thesis), *Partial Orders and the Axiomatic Theory of Shuffle*, 46 pages, December 1984. $2.00 **M**

1034. STAN-CS-85-1034, Barbara Hayes-Roth, *BB1: An architecture for blackboard systems that control, explain, and learn about their own behavior*, 22 pages, January 1985. $2.00 **M**

1035. STAN-CS-85-1035, J. J. Finger and M. R. Genesereth, *RESIDUE: A Deductive Approach to Design Synthesis*, 20 pages, January 1985. $2.00 **M**

1036. STAN-CS-85-1036, Barbara Hayes-Roth and Michael Hewett, *Learning Control Heuristics in BB1*, 12 pages, January 1985. $2.00 **M**

1037. STAN-CS-85-1037, Jock Mackinlay and Michael R. Genesereth, *Expressiveness and Language Choice*, 17 pages, January 1985. $2.00 **M**

1038. STAN-CS-85-1038, Andrew C. Yao, *Uniform Hashing Is Optimal*, 9 pages, January 1985. $2.00 **M**

1039. STAN-CS-85-1039, Joan Feigenbaum, John Hershberger, Alejandro A. Schaffer, *A Polynomial Time Algorithm for Finding the Prime Factors of Cartesian Product Graphs*, 27 pages, January 1985. $10.00 **+**

1040. STAN-CS-85-1040, Arthur M. Keller (thesis), *Updating Relational Databases through Views*, 119 pages, February 1985. $2.00 **M**

1041. STAN-CS-85-1041, A. Peter Blicher (thesis), *Edge Detection and Geometric Methods in Computer Vision*, 266 pages, February 1985. $2.00 **M**

1042. STAN-CS-85-1042, Jeffrey S. Rosenschein, Michael R. Genesereth, *Deals Among Rational Agents*, 25 pages, March 1985. $10.00 **+**

1043. STAN-CS-85-1043, Richard Karp, Eli Upfal, Avi Wigderson *Constructing a Perfect Matching is in Random NC*, 15 pages, March 1985. $10.00 **+**

1044. STAN-CS-85-1044, Zohar Manna and Richard Waldinger, *The Origins of the Binary-Search Paradigm*, 23 pages, March 1985. $2.00 **M**

1045. STAN-CS-85-1045, Anne von der Leith Gardner, *An Artificial Intelligence Approach to Legal Reasoning*, 205 pages, June 1984. $2.00 **M**

1046. STAN-CS-85-1046, Jeffrey D. Ullman and Allen Van Gelder, *Testing Applicability of Top-Down Capture Rules*, 13 pages, April 1985. $10.00 **+**

1047. STAN-CS-85-1047, John D. Hobby, *Smooth, Easy to Computer Interpolation Splines*, 14 pages, January, 1985. $10.00 **+**

1048. STAN-CS-85-1048, Vaughan Pratt, *Some Constructions for Order-Theoretic Models of Concurrency*, 17 pages, March 1985. $10.00 **+**

1049. STAN-CS-85-1049, Vaughan Pratt, *The Pomset Model of Parallel Processes: Unifying the Temporal and the Special*, 20 pages, January 1985. $10.00 **+**

1050. STAN-CS-85-1050, John Hershberger and Ernst Mayr, *Fast Sequential Algorithms to Find Shuffle-Minimizing and Shortest Paths in a Shuffle-Exchange Network*, 18 pages, May 1985. $10.00 **+**

1051. STAN-CS-85-1051, Zohar Manna and Richard Waldinger, *Special Relations in Automated Deduction*, 63 pages, May 1985. $10.00 **+**

1052. STAN-CS-85-1052, Carolyn E. Tajnai, *Fred Terman, the Father of Silicon Valley*, 19 pages, May 1985. $2.00 **M**

1053. STAN-CS-85-1053, Peter M. G. Apers and Gio Wiederhold, *Transaction Classification to Survive a Network Partition*, 12 pages, January 1985. $2.00 **M**

1054. STAN-CS-85-1054, Andrei Zary Broder (thesis), *Weighted Random Mappings; Properties and Applications*, 77 pages, May 1985. $10.00 **+**

1055. STAN-CS-85-1055, Ramsey W. Haddad and Donald E. Knuth, *A Programming and Problem-Solving Seminar*, 107 pages, January 1985. $2.00 **M**

1056. STAN-CS-85-1056, Martin Abadi and Zohar Manna, *Nonclausal Temporal Deduction*, 27 pages, January 1985. $10.00 **+**

1057. STAN-CS-85-1057, Ian A. Mason and Carolyn L. Talcott, *Memories of S-expressions Proving properties of Lisp-like programs that destructively alter memory*, 46 pages, June 1985. $10.00 **+**

1058. STAN-CS-85-1058, David R. Cheriton and Stephen E. Deering, *Host Groups: A Multicast Extension for Datagram Internetworks*, 8 pages, August 1985. $10.00 **+**

1059. STAN-CS-85-1059, Howard Trickey (thesis), *Compiling Pascal Programs into Silicon*, 140 pages, July 1985. $2.00 **M**

1060. STAN-CS-85-1060, Carolyn L. Talcott (thesis), *The Essence of Rum A theory of the Intensional and Extensional Aspects of Lisp-like Computation*, 249 pages, August 1985. $15.00 **+**

1061. STAN-CS-85-1061, Donald E. Knuth, *Theory and Practice*, 10 pages, August 1985. $2.00 **M**

1062. STAN-CS-85-1062, Arthur Keller, *Computer Science Comprehensive Examinations, 1981/82-1984/85*, 294 pages, August 1985. $2.00 **M**

1063. STAN-CS-85-1063, David Smith, Michael Genesereth, Matthew Ginsberg, *Controlling Recursive Inference*, 58 pages, June 1985. $10.00 **+**

1064. STAN-CS-85-1064, Matthew L. Ginsberg, *Decision Procedures*, 21 pages, May 1985. $2.00 **M**

1065. STAN-CS-85-1065, William J. Clancey, *Review of Sowa's "Conceptual Structures"*, 22 pages, March 1985. $2.00 **M**

1066. STAN-CS-85-1066, William J. Clancey, *Heuristic Classification*, 86 pages, June 1985. $10.00 **+**

1067. STAN-CS-85-1067, William J. Clancey, *Acquiring Representing, and Evaluating a Competence Model of Diagnostic Strategy*, 94 pages, August 1985. $2.00 **M**

1068. STAN-CS-85-1068, Mark A. Richer and William J. Clancey, *Guidon-Watch: A Graphic Interface for Viewing a Knowledge-Based System*, 43 pages, August 1985. $2.00 **M**

1069. STAN-CS-85-1069, Gabriel M. Kuper (thesis), *The Logical Data Model: A New Approach to Database Logic*, 107 pages, September 1985. $2.00 **M**

1070. STAN-CS-85-1070, John D. Hobby (thesis), *Digitized Brush Trajectories*, 125 pages, September 1985. $15.00 **+**

1071. STAN-CS-85-1071, Russell Greiner (thesis), *Learning by Understanding Analogies*, 423 pages, September 1985. $2.00 **M**

1072. STAN-CS-85-1072, Ernst Mayr, Richard Anderson, Peter Hochschild *A Programming and Problem-Solving Seminar*, 68 pages, October 1985. $10.00 **+**

1073. STAN-CS-85-1073, Peter H. Hochschild (thesis), *Resource-Efficient Parallel Algorithms*, 90 pages, September 1985. $10.00 **+**

1074. STAN-CS-85-1074, Richard Southall, *Designing New Typefaces with Metafont*, 38 pages, September 1985. $10.00 **+**

1075. STAN-CS-85-1075, Bruce G. Buchanan, *Expert systems: Working Systems and the Research Literature*, 26 pages, October 1985. $2.00 **M**

1076. STAN-CS-85-1076, Bruce G. Buchanan, *Some Approaches to Knowledge Acquisition*, 25 pages, July 1985. *This paper is superseded by STAN-CS-86-1094.*

1077. STAN-CS-85-1077, John McCarthy, Applications of Circumscription to Formalizing Common Sense Knowledge), 29 pages, September 1985. $10.00 **+**

1078. STAN-CS-85-1078, Harold L. Ossher (thesis), *A New Program Structuring Mechanism Based on Layered Graphs*, 247 pages, December 1984. $15.00 **+**

1079. STAN-CS-85-1079, David Helmbold and Ernst Mayr, *Two-Processor Scheduling is in NC*, 18 pages, October 1985. $10.00 **+**

1080. STAN-CS-85-1080, Stuart Russell, Esq., *The Compleat Guide to MRS*, 126 pages, June 1985. $2.00 **M**

1081. STAN-CS-85-1081, Jeffrey Solomon Rosenschein (thesis), *Rational Interaction: Cooperation among Intelligent Agents*, 133 pages, October 1985. $15.00 **+**

1082. STAN-CS-85-1082, William I. Nowicki (thesis), *Partitioning of Function in a Distributed Graphics System*, 146 pages, March 1985. $15.00 **+**

1083. STAN-CS-85-1083, Willy Zwaenepoel (thesis), *Message Passing on a Local Network*, 112 pages, October 1985. $15.00 **+**

1084. STAN-CS-85-1084, Judy L. Egidhoffer and Keith A. Lantz, *Taliesin: A Distributed Bulletin Board System*, 11 pages, September 1985. $10.00 **+**

1085. STAN-CS-85-1085, Kathryn A. Berg and Taleen Marashian, *Bibliography of Computer Science Reports, 1963-1986*, 72 pages, June 1986. $2.00 **M**

1086. STAN-CS-85-1086, K. A. Lantz, J. L. Edighoffer, and B. L. Hitson, *Towards a Universal Directory Service*, 19 pages, August 1985. $10.00 **+**

1087. STAN-CS-85-1087, M. M. Theimer, K. A. Lantz, and D. R. Cheriton, *Preemptable Remote Execution Facilities for the V-System*, 15 pages, September 1985. $10.00 **+**

1088. STAN-CS-85-1088, Allen Van Gelder, *A Message Passing Framework for Logical Query Evaluation*, 18 pages, December 1985. $10.00 **+**

1089. STAN-CS-85-1089, Jeffrey D. Ullman and Allen Van Gelder, *Parallel Complexity of Logical Query Programs*, 42 pages, December 1985. $10.00 **+**

1090. STAN-CS-86-1090, Kaizhi Yue (thesis), *Constructing and Analyzing Specifications of Real World Systems*, 290 pages, September 1985. $2.00 **M**

1091. STAN-CS-86-1091, Li-Min Fu (thesis), *Learning Object-Level and Meta-Level Knowledge in Expert Systems*, 229 pages, November 1985. $15.00 **+**

1092. STAN-CS-86-1092, Richard Anderson (thesis), *The Complexity of Parallel Algorithms*, 72 pages, November 1985. $2.00 **M**

1093. STAN-CS-86-1093, Devika Subramanian and Bruce G. Buchanan, *A General Reading List for Artificial Intelligence*, 66 pages, December 1985. $2.00 **M**

1094. STAN-CS-86-1094, Bruce G. Buchanan, *EXPERT SYSTEMS: Working Systems and the Research Literature*, 57 pages, December 1985. $2.00 **M**

1095. STAN-CS-86-1095, Donald E. Knuth, *A Torture Test for METAFONT*, 79 pages, January 1986. $10.00 **+**

1096. STAN-CS-86-1096, Marianne Winslett Wilkins, *A Model-Theoretic Approach to Updating Logical Databases*, 23 pages, January 1986. $10.00 **+**

1097. STAN-CS-86-1097, Donald E. Knuth, *TeXware*, 146 pages, April 1986. $15.00 **+**

1098. STAN-CS-86-1098, David Cheriton and Timothy Mann, *A Decentralized Naming Facility*, 26 pages, February 1986. $10.00 **+**

1099. STAN-CS-86-1099, Jitendra Malik (thesis), *Interpreting Line Drawings of Curved Objects*, 138 pages, December 1985. $15.00 **+**

1100. STAN-CS-86-1100, Martin Abadi and Zohar Manna, *Modal Theorem Proving*, 20 pages, May 1986. $10.00 **+**

1101. STAN-CS-86-1101, David E. Foulser (thesis), *On Random Strings and Sequence Comparisons*, 138 pages, February 1986. $2.00 **M**

1102. STAN-CS-86-1102, Jeffrey F. Naughton, *Data Independent Recursion in Deductive Databases*, 34 pages, February 1986. $10.00 **+**

1103. STAN-CS-86-1103, Jeffrey C. Mogul (thesis), *Representing Information about Files*, 204 pages, April 1986. $15.00 **+**

1104. STAN-CS-86-1104, Devika Subramanian, *CS 229b: A Survey of AI Classnotes for Winter '84-85*, 201 pages, April 1986. $15.00 **+**

1105. STAN-CS-86-1105, David R. Cheriton, Gert A. Slavenburg, Patrick D. Boyle, *Software Controlled Caches in the VMP Multiprocessor*, 12 pages, March 1986. $10.00 **+**

1106. STAN-CS-86-1106, Martin Abadi and Zohar Manna, *A Timely Resolution*, 21 pages, April 1986. $10.00 **+**

1107. STAN-CS-86-1107, David E. Smith (thesis), *Controlling Inference*, 199 pages, April 1986. $2.00 **M**

1108. STAN-CS-86-1108, Katherine Morris, Jeffrey D. Ullman, Allen Van Gelder, *Design*

Overview of the NAIL! System, 13 pages, May 1986. $2.00 **M**

1109. STAN-CS-86-1109, Ross Casley, *A Proof Editor for Propositional Temporal Logic*, 26 pages, May 1986. $10.00 **+**

1110. STAN-CS-86-1110, Yonathan Malachi, Zohar Manna, Richard Waldinger, *Tablog--A New Approach to Logic Programming*, 22 pages, March 1985. $10.00 **+**

1111. STAN-CS-86-1111, Paul S. Rosenbloom and John E. Laird, *Mapping Explanation-Based Generalization onto Soar*, 18 pages, June 1986. $10.00 **+**

1112. STAN-CS-86-1112, Stefan G. Demetrescu (thesis), *Scan Line Access Memories for High Speed Image Rasterization*, 137 pages, June 1986. $15.00 **+**

1113. STAN-CS-86-1113, Vaughan Pratt, *Modelling Concurrency with Partial Orders*, 33 pages, June 1986. $2.00 **M**

1114. STAN-CS-86-1114, Jeffrey F. Naughton, *Optimizing Function-Free Recursive Inference Rules*, 27 pages, May 1986. $10.00 **+**

1115. STAN-CS-86-1115, B. Buchanan, B. Hayes-Roth, O. Lichtarge, R. Altman, J. Brinkley, M. Hewett, C. Cornelius, B. Duncan, O. Jardetzky, *The Heuristic Refinement Method for Deriving Solution Structures of Proteins*, 25 pages, March 1986. $10.00 **+**

1116. STAN-CS-86-1116 (KSL-85-42), Li-Min Fu and Bruce G. Buchanan, *Inductive Knowledge Acquisition for Rule-B ased Expert Systems*, 36 pages, October 1985. $2.00 **M**

1117. STAN-CS-86-1117 (CSL-85-287), K. Lantz, W. Nowicki, M. Theimer, *An Empirical Study of Distributed Application Performance*, 25 pages, October 1985. $10.00 **+**

1118. STAN-CS-86-1118, David Helmbold and Ernst Mayr, *Applications of Parallel Scheduling to Perfect Graphs*, 20 pages, June 1986. $10.00 **+**

1119. STAN-CS-86-1119, David S. Rosenblum and Ernst Mayr, *Simulation of an Ultracomputer with Several 'Hot Spots'*, 37 pages, June 1986. $10.00 **+**

1120. STAN-CS-86-1120, Yoram Moses (thesis), *Knowledge in Distributed Environment*, 113 pages, March 1986. $2.00 **M**

1121. STAN-CS-86-1121, Joan Feigenbaum (thesis), *Product Graphs: Some Algorithmic and Combinatorial Results*, 69 pages, June 1986. $10.00 **+**

1122. STAN-CS-86-1122, Glenn D. Rennels (thesis), *A Computational Model of Reasoning from the Clinical Literature*, 263 pages, June 1986. $15.00 **+**

1123. STAN-CS-86-1123 (KSL-86-18), H. Penny Nii, *Blackboard Systems*, 95 pages, June 1986. $10.00 **+**

1124. STAN-CS-86-1124 (KSL-86-47), Daniel J. Scales, *Efficient Matching Algorithms*, 59 pages, June 1986. $2.00 **M**

1125. STAN-CS-86-1125 (KSL-86-22), Eric Schoen, *The CAOS System*, 75 pages, March 1986. $10.00 **+**

1126. STAN-CS-86-1126 (KSL-86-14), Byron Davies, *CAREL: A Visible Distributed Lisp*, 23 pages, March 1986. $10.00 **+**

1127. STAN-CS-86-1127, Yonathan Malachi (thesis), *Nonclausal Logic Programming*, 167 pages, March 1986. $2.00 **M**

1128. STAN-CS-86-1128 (CSL-86-302), Marvin M. Theimer (thesis), *Preemptable Remote Execution Facilities for Loosely-Coupled Distributed Systems*, 139 pages, June 1986. $15.00 **+**

1129. STAN-CS-86-1129, Evan R. Cohn and Ramsey W. Haddad, *Beta Operations: Efficient*

Implementation of a Primitive Parallel Operation, 18 pages, August 1986. $10.00 **+**

1130. STAN-CS-86-1130, Vishvjit S. Nalwa and Thomas O. Binford, *On Detecting Edges*, 50 pages, March 1986. $10.00 **+**

1131. STAN-CS-86-1131, Amotz Bar-Noy and David Peleg, *Processor Renaming in Asynchronous Environments*, 15 pages, September 1986. $10.00 **+**

1132. STAN-CS-86-1132, Yehoshua Sagiv, *Optimizing Datalog Programs*, 29 pages, March 1986. $10.00 **+**

1133. STAN-CS-86-1133, Judy Lynn Edighoffer (thesis), *Distributed, Replicated Computer Bulletin Board Service*, 152 pages, June 1986. $15.00 **+**

1134. STAN-CS-86-1134, David R. Cheriton, *UIO: A Uniform I/O System Interface for Distributed Systems*, 30 pages, November 1986. $10.00 **+**

1135. STAN-CS-86-1135, Richard Treitel (thesis), *Sequentialization of Logic Programs*, 167 pages, November 1986. $15.00 **+**

1136. STAN-CS-86-1136 (KSL-86-69), Harold D. Brown, Eric Schoen, Bruce A. Delagi, *An Experiment in Knowledge-based Signal Understanding Using Parallel Architectures*, 36 pages, October 1986. $10.00 **+**

1137. STAN-CS-86-1137, Jeffrey Mogul, *The Leaf File Access Protocol*, 25 pages, December 1986. $10.00 **+**

1138. STAN-CS-86-1138, Jock Mackinlay (thesis), *Automatic Design of Graphical Presentations*, 200 pages, December l986. $15.00 **+**

1139. STAN-CS-86-1139, Glenn Healey and Thomas O. Binford, *Local Shape from Specularity*, 29 pages, June 1986. $10.00 **+**

1140. STAN-CS-86-1140 (KSL-86-70), John E. Laird, Allen Newell, Paul S. Rosenbloom, *Soar: An Architecture for General Intelligence*, 63 pages, December 1986. $10.00 **+**

1141. STAN-CS-87-1141, Zohar Manna and Richard Waldinger, *How to Clear a Block: A Theory of Plans*, 39 pages, December 1986. $10.00 **+**

1142. STAN-CS-87-1142 (KSL-87-05), James Brinkley, Bruce Buchanan, Russ Altman, Bruce Duncan, and Craig Cornelius, *A Heuristic Refinement for Spacial Constraint Satisfaction Problems*, 15 pages, January 1987. $10.00 **+**

1143. STAN-CS-87-1143, Marianne S. Winslett (thesis), *Updating Databases with Incomplete Information*, 164 pages, January 1987. $15.00 **+**

1144. STAN-CS-87-1144 (KSL-87-07), Gregory T. Byrd and Bruce A. Delagi, *Considerations for Multiprocessor Topologies*, 6 pages, January 1987. $10.00 **+**

1145. STAN-CS-87-1145, David R. Cheriton and Cary L. Williamson, *Network Measurement of the VMTP Request-Response Protocol in the V Distributed System*, 23 pages, February 1987. $10.00 **+**

1146. STAN-CS-87-1146 (KSL-87-02), Gregory Byrd, Russell Nakano, Bruce Delagi, *A Point-to-Point Multicast Communications Protocol*, 35 pages, January 1987. $10.00 **+**

1147. STAN-CS-87-1147 (KSL-86-38), Barbara Hayes-Roth, Alan Garvey, M. Vaughan Johnson Jr., Michael Hewett, *A Layered Environment for Reasoning about Action*, 83 pages, November 1986. $10.00 **+**

1148. STAN-CS-87-1148 (KSL-86-36), Bruce Delagi, Nakul Saraiya, Sayuri Nishimura and Greg Byrd, *An Instrumented Architectural Simulation System*, 24 pages, January 1987. $10.00 **+**

1149. STAN-CS-87-1149, Katie Mac Millen, Ann Diaz-Barriga and Carolyn Tajnai, *Proceedings from the Nineteenth Annual Meeting of the Stanford Computer Forum*, 24 pages, February

1987. $10.00 **+**

1150. STAN-CS-87-1150, Stuart J. Russell (thesis), *Analogical and Inductive Reasoning*, 230 pages, December 1986. $2.00 **M**

1151. STAN-CS-87-1151, Martin Abadi (thesis), *Temporal-Logic Theorem Proving*, 179 pages, March 1987. $15.00 **+**

1152. STAN-CS-87-1152, James E. Davidson (thesis), *Interpreting Natural Language Database Updates*, 119 pages, April 1987. $15.00 **+**

1153. STAN-CS-87-1153, Xanthippi Markenscoff and Christos Papadimitriou, *Optimum Grip of a Polygon*, 21 pages, April 1987. $10.00 **+**

1154. STAN-CS-87-1154, Tomas G. Rokicki and Donald E. Knuth, *A Programming and Problem-Solving Seminar*, 89 pages, April 1987. $10.00 **M**

1155. STAN-CS-87-1155, Gianluigi Bellin and Jussi Ketonen, *Experiments in Automatic Theorem Proving*, 265 pages, December 1986. $15.00 **+**

1156. STAN-CS-87-1156, Ernst W. Mayr, *The Dynamic Tree Expression Problem*, 19 pages, May 1987. $10.00 **+**

1157. STAN-CS-87-1157, Ernst W. Mayr and C. Greg Plaxton, *Network Implementation of the DTEP Algorithm*, 22 pages, May 1987. $10.00 **+**

1158. STAN-CS-87-1158, Terry A. Winograd, *A Language/Action Perspective on the Design of Cooperative Work*, 34 pages, May 1987. $10.00 **+**

1159. STAN-CS-87-1159, Terry A. Winograd, *Muir: A Tool for Language Design*, 30 pages, May 1987. $10.00 **+**

1160. STAN-CS-87-1160, Terry A. Winograd, *Strategic Computing Research and the Universities*, 17 pages, March 1987. $2.00 **M**

1161. STAN-CS-87-1161, Terry A. Winogad, *Thinking Machines: Can There Be? Are We?*, 34 pages, June 1987. $2.00 **M**

1162. STAN-CS-87-1162, Thomas Spencer, *Weighted Matching Algorithms*, 130 pages, June 1987. $15.00 **+**

1163. STAN-CS-87-1163, John E. Hershberger (thesis), *Efficient Algorithms for Shortest Path and Visibility Problems*, 193 pages, June 1987. $15.00 **+**

1164. STAN-CS-87-1164, Anna R. Karlin (thesis), *Sharing Memory in Distributed Systems -- Methods and Applications*, 76 pages, June 1987. $10.00 **+**

1165. STAN-CS-87-1165, Christina Fraley (thesis), *Solution of Nonlinear Least-Squares Problems*, 325 pages, June 1987. $15.00 **+**

1166. STAN-CS-87-1166 (KSL-87-43), H. G. Okuno and A. Gupta, *Parallel Execution of OPS5 in QLISP*, 19 pages, June 1987. $10.00 **+**

1167. STAN-CS-87-1167 (Classic-87-03), Wei-Pai Tang (thesis), *Schwarz Splitting and Template Operators*, 139 pages, June 1987. $15.00 **+**

1168. STAN-CS-87-1168 (KSL-85-16), W. J. Clancey and C. Bock, *Representing Control Knowledge as Abstract Task and Metarules*, 73 pages, April 1985. $10.00 **+**

1169. STAN-CS-87-1169 (KSL-85-32), T. F. Thompson and W. J. Clancey, *Applying a Qualitative Modeling Shell to Process Diagnosis: The Caster System*, 50 pages, March 1986. $10.00 **+**

1170. STAN-CS-87-1170 (KSL-86-27), William J. Clancey, *Viewing Knowledge Bases as Qualitative Models*, 33 pages, May 1986. $10.00 **+**

1171. STAN-CS-87-1171 (KSL-86-15), William J. Clancey, *Qualitative Student Models*, 50 pages, May 1986. $10.00 **+**

1172. STAN-CS-87-1172 (KSL-86-11), William J. Clancey, *From GUIDON to NEOMYCIN and HERACLES in Twenty Short Lessons*, 36 pages, July 1986. $10.00 **+**

1173. STAN-CS-87-1173 (KSL-86-48), William J. Clancey, *Review of Winograd and Flores' Understanding Computers and Cognition*, 27 pages, July 1986. $10.00 **+**

1174. STAN-CS-87-1174 (KSL-86-58), William J. Clancey, *Intelligent Tutoring Systems: A Tutorial Survey*, 62 pages, September 1986. $10.00 **+**

1175. STAN-CS-87-1175 (KSL-86-62), David C. Wilkins and Bruce G. Buchanan, *Using and Evaluating Differential Modeling in Intelligent Tutoring and Apprentice Learning Systems*, 41 pages, January 1987. $10.00 **+**

1176. STAN-CS-87-1176, P. Flajolet, D. Gardy, and L. Thimonier, *Birthday Paradox, Coupon Collectors, Caching Algorithms, and Self-Organizing Search*, 18 pages, August 1987. $10.00 **+**

1177. STAN-CS-87-1177, Ross S. Finlayson and David R. Cheriton, *Log Files: An Extended File Service Exploiting Write-Once Storage*, 14 pages, August 1987. $10.00 **+**

1178. STAN-CS-87-1178 (KSL-87-44), G. T. Byrd, R. Nakano, and B. A. Delagi, *A Dynamic, Cut-Through Communications Protocol with Multicast*, 31 pages, September 1987. $10.00 **+**

1179. STAN-CS-87-1179, Timothy Paul Mann (thesis), *Decentralized Naming in Distributed Computer Systems*, 101 pages, September 1987. $15.00 **+**

1180. STAN-CS-88-1180, Taleen Marashian Nazarian *Bibliography, Department of Computer Science Technical Reports, 1963-1988*, 92 pages, January 1988. $2.00 **M**

1181. STAN-CS-87-1181 (KSL-86-30), David C. Wilkins and Bruce G. Buchanan, *On Debugging Rule Sets When Reasoning Under Uncertainty*, 21 pages, May 1987. $10.00 **+**

1182. STAN-CS-87-1182 (KSL-87-01), David C. Wilkins and Bruce G. Buchanan, *Knowledge Base Refinement by Monitoring Abstract Control Knowledge*, 21 pages, August 1987. $10.00 **+**

1183. STAN-CS-87-1183 (KSL-87-12), William J. Clancey, *The Knowledge Engineer as Student: Metacognitive bases for asking good questions*, 51 pages, January 1987. $10.00 **+**

1184. STAN-CS-87-1184 (KSL-87-57), H. Okuno, N. Osato, and I. Takeuchi, *Firmware Approach to Fast Lisp Interpreter*, 30 pages, September 1987. $10.00 **+**

1185. STAN-CS-87-1185 (CSL-TR-87-346), Zygmunt Haas and David R. Cheriton, *Blazenet: A Photonic Implementable Wide-Area Network*, 23 pages, December 1987. $10.00 **+**

1186. STAN-CS-87-1186, Zohar Manna and Amir Pnueli, *A Hierarchy of Temporal Properties*, 44 pages, October 1987. $2.00 **M**

1187. STAN-CS-87-1187, K. Morris, J. F. Naughton, Y. Saraiya, J. D. Ullman, and A. Van Gelder, *YAWN! (YET ANOTHER WINDOW ON NAIL!)*, 16 pages, October 1987. $10.00 **+**

1188. STAN-CS-87-1188 (KSL-87-61), R. Nakano and M. Minami, *Experiments with a Knowledge-Based System on a Multiprocessor*, 53 pages, October 1987. $10.00 **+**

1189. STAN-CS-87-1189 (KSL-87-65), B. A. Delagi, N. Saraiya, S. Nishimura, and G. T. Byrd, *Instrumented Architectural Simulation*, 8 pages, November 1987. $10.00 **+**

1190. STAN-CS-88-1190, Scott Edward Kim (thesis), *Viewpoint: Toward a Computer for Visual Thinkers*, 137 pages, January 1988. $15.00 **+**

1191. STAN-CS-88-1191, Chunsheng Cai (thesis), *Instantaneous Robot Motion with Contact between Surfaces*, 183 pages, January 1988. $15.00 **+**

1192. STAN-CS-88-1192 (CSL-TR-88-359), David R. Cheriton, *The Unified Management of Memory in the V Distributed System*, 24 pages, August 1988. $10.00 **+**

1193. STAN-CS-88-1193, D. E. Knuth, T. Larrabee, and P. M. Roberts, *Mathematical Writing*, 115 pages, January 1988. $15.00 **+**

1194. STAN-CS-88-1194, Mark A. Musen, *Generation of Model-Based Knowledge-Acquisition Tools for Clinical-Trial Advice Systems*, 294 pages, January 1988. $15.00 **+**

1195. STAN-CS-88-1195, A. Bar-Noy, N. Linial, and D. Peleg, *A Lower Bound for Radio Broadcast*, 15 pages, February 1988. $10.00 **+**

1196. STAN-CS-88-1196, Jean-Claude Latombe, *Motion Planning with Uncertainty: The Preimage Backchaining Approach*, 62 pages, January 1988. $2.00 **M**

1197. STAN-CS-88-1197 (CSL-TR-88-354), D. R. Cheriton, A. Gupta, P. D. Boyle, and H. A. Goosen, *The VMP Multiprocessor: Initial Experience, Refinements, and Performance Evaluation*, 24 pages, March 1988. $2.00 **M**

1198. STAN-CS-88-1198, John Lamping (thesis), *A Unified System of Parameterization for Programming Languages*, 141 pages, April 1988. $15.00 **+**

1199. STAN-CS-88-1199, H. K. Buning, T. Lettman, and E. W. Mayr, *Projections of Vector Addition System Reachability Sets are Semilinear*, 9 pages, March 1988. $10.00 **+**

1200. STAN-CS-88-1200, R. J. Anderson, E. W. Mayr, and M. K. Warmuth, *Parallel Approximation Algorithms for Bin Packing*, 16 pages, March 1988. $10.00 **+**

1201. STAN-CS-88-1201, Philippe Flajolet and Andrew Odlyzko, *Singularity Analysis of Generating Functions*, 25 pages, April 1988. $10.00 **+**

1202. STAN-CS-88-1202, Marianne Baudinet, *Proving Termination Properties of PROLOG Programs: A Semantic Approach*, 14 pages, March 1988. $10.00 **+**

1203. STAN-CS-88-1203, Marianne Baudinet, *On the Semantics of Temporal Logic Programming*, 30 pages, June 1988. $10.00 **+**

1204. STAN-CS-88-1204, Joseph Jeffrey Finger (thesis), *Exploiting Constraints in Design Synthesis*, 128 pages, April 1987. **M**

1205. STAN-CS-88-1205, Brian Stewart Randall Armstrong (thesis), *Dynamics for Robot Control: Friction Modeling and Ensuring Excitation During Parameter Identification*, 198 pages, May 1988. $15.00 **+**

1206. STAN-CS-88-1206, Joseph S. Weening, *A Parallel Lisp Simulator*, 27 pages, May 1988. $10.00 **+**

1207. STAN-CS-88-1207, Joel W. Burdick (thesis), *Kinematic Analysis and Design of Redundant Robot Manipulators*, 267 pages, March 1988. $15.00 **+**

1208. STAN-CS-88-1208, Tomas Feder, *Toetjes*, 13 pages, June 1988. $10.00 **+**

1209. STAN-CS-88-1209, A. V. Goldberg, S. A. Plotkin, and E. Tardos, *Combinatorial Algorithms for the Generalized Circulation Problem*, 36 pages, June 1988. $10.00 **+**

1210. STAN-CS-88-1210, Alexandre Bronstein and Carolyn L. Talcott, *String-Functional Semantics for Formal Verification of Synchronous Circuits*, 62 pages, June 1988. $10.00 **+**

1211. STAN-CS-88-1211, A. V. Goldberg, S. A. Plotkin, and P. M. Vaidya, *Sublinear-Time Parallel Algorithms*, 27 pages, June 1988. $10.00 **+**

1212. STAN-CS-88-1212, Patrick Haven Worley (thesis), *Information Requirements and the Implications for Parallel Computation*, 148 pages, June 1988. $2.00 **M**

1213. STAN-CS-88-1213 (CSL-TR-88-360), David R. Cheriton, *Exploiting Recursion to Simplify*

RPC Communication Architectures, 14 pages, June 1988. $2.00 **M**

1214. STAN-CS-88-1214 (CSL-TR-88-361), Stephen E. Deering, *Multicast Routing in Internetworks and Extended LANs*, 14 pages, June 1988. $10.00 **+**

1215. STAN-CS-88-1215, Jorge Stolfi (thesis), *Primitives for Computational Geometry*, 236 pages, June 1988. $2.00 **M**

1216. STAN-CS-88-1216, Alejandro A. Schaffer (thesis), *Algorithmic Problems on Intersection Graphs*, 139 pages, July 1988. $15.00 **+**

1217. STAN-CS-88-1217, Kenneth P. Brooks (thesis), *A Two-View Document Editor with User-Definable Document Structure*, 203 pages, June 1988. $2.00 **M**

1218. STAN-CS-88-1218, Amotz Bar-Noy and David Peleg, *Square Meshes are not Always Optimal*, 28 pages, August 1988. $10.00 **+**

1219. STAN-CS-88-1219, P. Flajolet, D. E. Knuth, and B. Pittel, *The First Cycles in an Evolving Graph*, 49 pages, September 1988. $10.00 **+**

1220. STAN-CS-88-1220, Richard L. Vistnes (thesis), *Computer Texture Analysis and Segmentation*, 186 pages, June 1988. $15.00 **+**

1221. STAN-CS-88-1221, Richard Beigel (thesis), *Query-Limited Reducibilities*, 144 pages, July 1988. $15.00 **+**

1222. STAN-CS-88-1222 (KSL-88-62), Max Hailpern, *Load Balancing for Massively Parallel Soft-Real-Time Systems*, 19 pages, September 1988. $10.00 **+**

1223. STAN-CS-88-1223, Donald E. Knuth, *The Errors of TEX*, 75 pages, September 1988. $10.00 **+**

1224. STAN-CS-88-1224, Vineet Singh (thesis), *Distributing Backward-Chaining Deductions to Multiple Processors*, 222 pages, April 1988. $15.00 **+**

1225. STAN-CS-88-1225, Ernst W. Mayr, *Parallel Approximation Algorithms*, 17 pages, September 1988. $10.00 **+**

1226. STAN-CS-88-1226 (KSL-88-64), Barbara Hayes-Roth, *Making Intelligent Systems Adaptive*, 27 pages, October 1988. $10.00 **+**

1227. STAN-CS-88-1227, R. K. Ahuja, A. V. Goldberg, J. B. Orlin, and R. E. Tarjan, *Finding Minimum-Cost Flows by Double Scaling*, 28 pages, October 1988. $10.00 **+**

1228. STAN-CS-88-1228, A. V. Goldberg and R. E. Tarjan, *A Parallel Algorithm for Finding a Blocking Flow in an Acyclic Network*, 9 pages, November 1988. $10.00 **+**

1229. STAN-CS-88-1229 (KSL-88-50), B. Hayes-Roth, M. Hewett, R. Washington, and R. Hewett, *Distributing Intelligence within an Individual*, 23 pages, November 1988. $2.00 **M**

1230. STAN-CS-88-1230, Zohar Manna and Amir Pnueli, *Specification and Verification of Concurrent Programs by For-All Automata*, 41 pages, November 1988. $10.00 **+**

1231. STAN-CS-88-1231, Evan R. Cohn (thesis), *The Beta Operation: A Parallel Primitive*, 69 pages, November 1988. $10.00 **+**

1232. STAN-CS-88-1232, Marianne Baudinet, *Temporal Logic Programming is Complete and Expressive*, 15 pages, October 1988. $10.00 **+**

1233. STAN-CS-88-1233, Kenneth A. Ross, *A Procedural of Semantics for Well Founded Negation in Logic Programs*, 29 pages, November 1988. $10.00 **+**

1234. STAN-CS-88-1234, Boris Pittel, *The Average Number of Stable Matchings*, 21 pages, December 1988. $10.00 **+**

1235. STAN-CS-88-1235, Donald E. Knuth, *Concrete Mathematics Errata*, 30 pages, December

1988. $10.00 **+**

1236. STAN-CS-88-1236, Yoav Shoham, *Time for Action: On the Relation between Time, Knowledge, and Action*, 16 pages, December 1988. $2.00 **M**

1237. STAN-CS-88-1237, Yoav Shoham and Yoram Moses, *Belief as Defeasible Knowledge*, 11 pages, December 1988. $10.00 **+**

1238. STAN-CS-88-1238, Per Magnus Bothner, *Efficiently Combining Logical Constraints with Functions*, 191 pages, December 1988. $15.00 **+**

1239. STAN-CS-88-1239, Amotz Bar-Noy and Joseph Naor, *Sorting, Minimal Feedback, and Hamilton Paths in Tournaments*, 21 pages, December 1988. $10.00 **+**

1240. STAN-CS-88-1240, E. Gafni, J. Naor, and P. Ragde, *On Separating the EREW and CREW PRAM Models*, 6 pages, December 1988. $10.00 **+**

1241. STAN-CS-88-1241, Donald Knuth, Rajeev Motwani, and Boris Pittel, *Stable Husbands*, 16 pages, December 1988. $2.00 **M**

1242. STAN-CS-88-1242, David C. Wilkins (thesis), *Apprenticeship Learning Techniques for Knowledge Based Systems*, 153 pages, December 1988. $15.00 **+**

1243. STAN-CS-89-1243, Fangzhen Lin and Yoav Shoham, *Argument Systems: a uniform basis for nonmonotonic reasoning*, 28 pages, January 1989. $10.00 **+**

1244. STAN-CS-89-1244, Christina Fraley, *Software Performance on Nonlinear Least-Squares Problems*, 128 pages, January 1989. $15.00 **+**

1245. STAN-CS-89-1245, Gio Wiederhold, Thierry Barsalou, and Surajit Chaoudhuri, *Managing Objects in a Relational Framework*, 103 pages, January 1989. $15.00 **+**

1246. STAN-CS-89-1246, Gregory Byrd, Nakul Saraiya, and Bruce Delagi, *Multicast Communication in Multiprocessor Systems*, 19 pages, January 1989. $10.00 **+**

1247. STAN-CS-89-1247, Arkady Rabinov and Igor Rivin, *Programming in Qlisp - A Case Study*, 17 pages, January 1989. $10.00 **+**

1248. STAN-CS-89-1248, A. Goldberg, M. Grigoriadis, and R. Tarjan, *Efficiency of the Network Simpler Algorithm for the Maximum Flow Problem*, 18 pages, February 1989. $10.00 **+**

1249. STAN-CS-89-1249, Marianne Baudinet, *Logic Programming Semantics: Techniques and Applications* 172 pages, February 1989. $15.00 **+**

1250. STAN-CS-89-1250, Ian Mason and Carolyn Talcott, *A Sound and Complete Axiomatization of Operational Equivalence between Programs with Memory* 27 pages, March 1989. $10.00 **+**

1251. STAN-CS-89-1251, K. Cleo Huggins, *Egyptian Hieroglyphs for Modern Printing Devices* 62 pages, March 1989. $10.00 **+**

1252. STAN-CS-89-1252, Andrew Goldberg, Eva Tardos, and Robert Tarjan, *Network Flow Algorithms*, 82 pages, March 1989. $2.00 **M**

1253. STAN-CS-89-1253, Stephen A. Vavasis (thesis), *Complexity of Fixed Point Computations*, 102 pages, April 1989. $15.00 **+**

1254. STAN-CS-89-1254, Robert W. Floyd and Donald E. Knuth, *Addition Machines*, 16 pages, April 1989. $10.00 **+**

1255. STAN-CS-89-1255, Donald E. Knuth, Tomas G. Rokicki, and Arthur L. Samuel, *METAFONTware*, 207 pages, May 1989. $15.00 **+**

1256. STAN-CS-89-1256, Neenie Billawala, *Metamarks: Preliminary Studies for a Pandora's Box of Shapes*, 131 pages, May 1989. $15.00 **+**

1257. STAN-CS-89-1257, Jerome Barraquand and Jean-Claude Latombe, *Robot Motion Planning: a distributed representation approach*, 56 pages, May 1989. $2.00 **M**

1258. STAN-CS-89-1258, Pang-Chieh Chen, *Heuristic Sampling on Backtrack Trees*, 172 pages, May 1989. $15.00 **+**

1259. STAN-CS-89-1259, A. Goldberg, S. Plotkin, D. Shmoys, and E. Tardos, *Interior-Point Methods in Parallel Computation*, 15 pages, May 1989. $10.00 **+**

1260. STAN-CS-89-1260, Devika Subramanian (Thesis), *A Theory of Justified Reformulations*, 134 pages, May 1989. $15.00 **+**

1261. STAN-CS-89-1261, Ernst W. Mayr and C. Greg Plaxton, *Pipelined Parallel Prefix Computations and Sorting on a Pipelined Hypercube*, 305 pages, May 1989. $15.00 **+**

1262. STAN-CS-89-1262, Arun N. Swami (thesis), *Optimization of Large Join Queries*, 145 pages, June 1989. $15.00 **+**

1263. STAN-CS-89-1263, Peter D. Karp (thesis), *Hypothesis Formation and Qualitative Reasoning in Molecular Biology*, 339 pages, June 1989. $20.00 **+**

1264. STAN-CS-89-1264, Bernd Fischer and Roland Freund, *Chebyshev Polynomials are not always Optimal*, 14 pages, June 1989. $10.00 **+**

1265. STAN-CS-89-1265, Joseph S. Weening (thesis), *Parallel Execution of Lisp Programs* 94 pages, June 1989. $10.00 **+**

1266. STAN-CS-89-1266, David R. Cheriton, Hendrik A. Goosen, and Patrick D. Boyle, *Multi-level Shared Caching Techniques for Scalability in VMP-MC*, 19 pages, June 1989. $2.00 **M**

1267. STAN-CS-89-1267, Rajeev Alur and Thomas A. Henzinger, *A Really Temporal Logic*, 27 pages, July 1989. $10.00 **+**

1268. STAN-CS-89-1268, Robert W. Floyd and Donald E. Knuth, *Addition Machines*, 16 pages, July 1989. $10.00 **+**

1269. STAN-CS-89-1269, Kenneth A. Ross and Donald E. Knuth, *A Programming and Problem Solving Seminar*, 88 pages, July 1989. **M**

1270. STAN-CS-89-1270, Mary A. Holstege, *Marking and the Design of Notations*, 255 pages, July 1989. $15.00 **+**

1271. STAN-CS-89-1271, Mark D. Kent (thesis), *Chebyshev, Krylov, Lanczos: Matrix Relationships and Computations*, 136 pages, July 1989. $15.00 **+**

1272. STAN-CS-89-1272, Ross S. Finlayson (Thesis), *A Log File Service Exploiting Write-Once Storage*, 98 pages, July 1989. $10.00 **+**

1273. STAN-CS-89-1273, David R. Cheriton, *Serpent: A High-Performance Internetworking Approach*, 13 pages, July 1989. $10.00 **+**

1274. STAN-CS-89-1274, Haym Hirsh (Thesis), *Incremental Version-Space Merging: A General Framework for Concept Learning*, 103 pages, August 1989. $15.00 **+**

1275. STAN-CS-89-1275, Ashok Subramanian, *A New Approach to Stable Matching Problems*, 35 pages, August 1989. $10.00 **+**

1276. STAN-CS-89-1276, C. Greg Plaxton, *On the Network Complexity of Selection*, 20 pages, August 1989. $10.00 **+**

1277. STAN-CS-89-1277, John C. Mitchell, *Type Systems for Programming Languages*, 90 pages, August 1989. $10.00 **+**

1278. STAN-CS-89-1278, Mayr and Subramanian, *The Complexity of Circuit Value and Network Stability*, 19 pages, August 1989. $10.00 **+**

1279. STAN-CS-89-1279, David Zhu and Jean-Claude Latombe, *The Heuristic Algorithms for Efficient Hierarchical Path Planning*, 44 pages, August 1989. $10.00 **+**

1280. STAN-CS-89-1280, Serge A. Plotkin, *Sticky Bits and Universality of Consensus*, 19 pages, August 1989. $10.00 **+**

1281. STAN-CS-89-1281, C. Greg Plaxton, *Load Balancing on the Hypercube and Shuffle-Exchange*, 19 pages, August 1989. $10.00 **+**

1282. STAN-CS-89-1282, Sriram Sankar, *Automatic Runtime Consistency Checking and Debugging of Formally Specified Programs*, 210 pages, August 1989. $15.00 **+**

1283. STAN-CS-89-1283, C. Gregory Plaxton (Thesis), *Efficient Computation on Sparse Interconnection Networks*, 122 pages, September 1989. $15.00 **+**

1284. STAN-CS-89-1284, Donald E. Knuth, *Theory and Practice*, 25 pages, September 1989. $10.00 **+**

1285. STAN-CS-89-1285, J. Barraquand, B. Langlois, and J. Latombe, *Numerical Potential Field Techniques for Robot Path Planning*, 39 pages, October 1989. $10.00 **+**

1286. STAN-CS-89-1286, Eric Rothberg and Anoop Gupta, *Fast Sparse Matrix Factorization on Modern Workstations*, 16 pages, October 1989. $10.00 **+**

1287. STAN-CS-89-1287, Linda Gail DeMichiel, *Performing Database Operations Over Mismatched Domains*, 172 pages, October 1989. $15.00 **+**

1288. STAN-CS-89-1288, Carolyn Talcott, *Programming and Proving with Function and Control Abstractions*, 121 pages, October 1989. $15.00 **+**

1289. STAN-CS-89-1289, Glenn Healey (thesis), *The Use of Optical Info in a Machine Vision System*, 131 pages, September 1989. $15.00 **+**

1290. STAN-CS-89-1290, Myers, Subramanian, and Zabih, *Reading List for the Qualifying Examination in Artificial Intelligence*, 16 pages, November 1989. $10.00 **+**

1291. STAN-CS-89-1291, Xiaolei Quian (thesis), *The Deductive Synthesis of Database Transactions*, 194 pages, November 1989. $15.00 **+**

1292. STAN-CS-89-1292, Latombe, Lazanas, and Shekhar, *Robot Motion Planning with Uncertainty in Control and Sensing*, 48 pages, November 1989. $10.00 **+**

1293. STAN-CS-89-1293, Alexandre Bronstein (thesis), *String-Functional Semantics and Boyer-Moore Mechanization for the Formal Verification of Synchronous Circuits*, 289 pages, December 1989. $15.00 **+**

1294. STAN-CS-89-1294, James Rice, *The Design and Implementation of Poligon, a High-Performance, Concurrent Blackboard System Shell*, 88 pages, November 1989. $10.00 **+**

1295. STAN-CS-89-1295, Curtis Phiip Langlotz (thesis), *A Decision-Theoretic Approach to Heuristic Planning*, 381 pages, November 1989. $20.00 **+**

1296. STAN-CS-89-1296, Zohar Manna and Amir Pnueli, *Completing the Temporal Picture*, 28 pages, December 1989. $10.00 **+**

1297. STAN-CS-89-1297, Casley, Crew, Meseguer, and Pratt, *Temporal Structures*, 43 pages, December 1989. $10.00 **+**

1298. STAN-CS-89-1298, NEVER PRINTED.

1299. STAN-CS-90-1299, Ray Tuminaro (thesis), *Multigrid Algorithms on Parallel Processing Systems*, 143 pages, December 1989. $15.00 **+**

1300. STAN-CS-90-1300, Guibas, Knuth, and Sharir, *Randomized Incremental Construction of Delaunay and Voronoi Diagrams*, 36 pages, January 1990. $10.00 **+**

1301. STAN-CS-90-1301, Andrew Goldberg, *Processor-Efficient Implementation of a Maximum Flow Algorithm*, 11 pages, January 1990. $10.00 **+**

1302. STAN-CS-90-1302, Tracy Larrabee (thesis), *Efficient Generation of Test Patterns Using Boolean Satisfiability*, 68 pages, February 1990. $10.00 **+**

1303. STAN-CS-90-1303, Wiederhold, Rathmann, Chaudhuri, DeMichiel, Law, Barsalou, Quass, Risch, and Lee, *A Mediator Architecture for Abstract Data Access*, 170 pages, February 1990. $15.00 **+**

1304. STAN-CS-90-1304), Matsushima Toshiyuki and Gio Wiederhold, *A Model of Object-Identities and Values*, 65 pages, February 1990. $10.00 **+**

1305. STAN-CS-90-1305, Edward Rothberg and Anoop Gupta, *A Comparative Evaluation of Nodal and Supernodal Parallel Sparse Matrix Factorization: Detailed Simulation Results*, 28 pages, February 1990. $10.00 **+**

1306. STAN-CS-90-1306, Russ Biagio Altman (thesis), *Exclusion Methods for the Determination of Protein Structure from Experimental Data*, 205 pages, March 1990. $20.00 **+**

1307. STAN-CS-90-1307, Rajeev Alur and Thomas Henzinger, *Real-Time Logics: Complexity and Expressiveness*, 35 pages, March 1990. $10.00 **+**

1308. STAN-CS-90-1308, Oren Patashinik (thesis), *Optimal Circuit Segmentation for Pseudo-Exhaustive Testing*, 110 pages, March 1990. $15.00 **+**

1309. STAN-CS-90-1309, Vaughan Pratt, *Dynamic Algebras as a well-behaved fragment of Relation Algebras*, 30 pages, March 1990. $10.00 **+**

1310. STAN-CS-90-1310, Thierry Barsalou (thesis), *View Objects for Relational Databases*, 350 pages, March 1990. $2.00**M**

1311. STAN-CS-90-1311, Ashok Subramanian (thesis), *The Computational Complexity of the Circuit Value and Network Stability Problems*, 171 pages, May 1990. $15.00 **+**

1312. STAN-CS-90-1312, Subbarao Kambhampati and James A. Hendler, *A Validation Structure Based Theory of Plan Modification and Reuse*, 56 pages, June 1990. $10.00 **+**

1313. STAN-CS-90-1313, Andrew Goldberg and Dan Gusfield, *Flow Algorithms*, 15 pages, June 1990. $10.00 **+**

1314. STAN-CS-90-1314, John R. Koza, *Genetic Programming: A Paradigm for Genetically Breeding Populations of Computer Programs to Solve Problems*, 130 pages, June 1990. $15.00 **+**

1315. STAN-CS-90-1315, Joseph I. Pallas (thesis), *Multiprocessor Smalltalk: Implementation, Performance and Analysis*, 136 pages, December 1989. $15.00 **+**

1316. STAN-CS-90-1316, David Earl Heckerman (thesis), *Probabilistic Similarity Networks*, 285 pages, June 1990. $20.00 **+**

1317. STAN-CS-90-1317, Jerome Barraquand and Jean-Claude Latombe, *Controllability of Mobile Robots with Kinematic Constraints*, 26 pages, June 1990. $10.00 **+**

1318. STAN-CS-90-1318, Edward Rothberg and Anoop Gupta, *Techniques for Improving the Performance of Sparse Matrix Factorization on Multiprocessor Workstations*, 14 pages, June 1990. $10.00 **+**

1319. STAN-CS-90-1319, Gianluigi Bellin (thesis), *Mechanizing Proof Theory: Resource-Aware Logics and Proof Transformations to Extract Implicit Information*, 237 pages, June 1990. $20.00 **+**

1320. STAN-CS-90-1320, Holly Brugge Jimison (thesis), *A Representation for Gaining Insight into Clinical Decision Models*, 202 pages, June 1990. $20.00 **+**

1321. STAN-CS-90-1321, Zohar Manna and Amir Pnueli, *Tools and Rules for the Practicing Verifier*, 35 pages, July 1990. $10.00 **+**

1322. STAN-CS-90-1322, Yoav Shoham and Fangzhen Lin, *Epistemic Semantics for Fixed-Point Nonmonotonic Logics*, 11 pages, July 1990. $10.00 **+**

1323. STAN-CS-90-1323, Eyal Moses and Yoav Shoham, *Protograms*, 18 pages, July 1990. $10.00 **+**

1324. STAN-CS-90-1324, Ramiro A. de T. Guerreira, Andrea S. Hemerly, Yoav Shoham, *On the Complexity of Montonic Inheritance with Roles*, 6 pages, August. $10.00 **+**

1325. STAN-CS-90-1325, Jean-Francois Lavignon and Yoav Shoham, *Temporal Automata*, 41 pages, July 1990. $10.00 **+**

1326. STAN-CS-90-1326, Leslie Pack Kaelbling (thesis), *Learning in Embedded Systems*, 199 pages, June 1990. $15.00 **+**

1327. STAN-CS-90-1327, Thane E. Plambeck (thesis), *Semigroups and Transitive Closure*, 123 pages, August 1990. $15.00 **+**

1328. STAN-CS-90-1328, Tomasz Radzik and Andrew V. Goldberg, *Tight Bounds on the Number of Minimum-Mean Cycle Cancellations*, 19 pages, September 1990. $10.00 **+**

1329. STAN-CS-90-1329, Thomas A. Henzinger, Zohar Manna, Amir Pnueli, *An Interleaving Model for Real Time*, 36 pages, September 1990. $10.00 **+**

1330. STAN-CS-90-1330, Edward Rothberg and Anoop Gupta, *Parallel ICCG on a Hierarchical Memory Multiprocessor*, 21 pages, October 1990. $10.00 **+**

1331. STAN-CS-90-1331, Jack Scott Snoeyink, *Topological Approaches in Computational Geometry*, 104 pages, November. $2.00 **M**

1332. STAN-CS-90-1332, Eric Jonathan Schoen, *Intelligent Assistance for the Design of Knowledge-Based Systems*, 258 pages, October 1990. $2.00 **M**

1333. STAN-CS-90-1333, Michael J. Spreitzer, *Comparing Structurally Different Views of a VLSI Design*, 161 pages, October 1990. $15.00 **+**

1334. STAN-CS-90-1334, Miriam G. Blatt, *Soft Configurable Wafer Scale Intergration Design, Implementation and Yield Analysis*, 123 pages, October 1990. $15.00 **+**

1335. STAN-CS-90-1335, Yoav Shoham, *Agent-Oriented Programming*, 52 pages, October 1990. $10.00 **+**

1336. STAN-CS-90-1336, Donald E. Knuth, *CWEB User Manual The CWEB System of Structured Documentation*, 214 pages, October 1990. $20.00 **+**

1337. STAN-CS-90-1337, Louis Galbiati, Carolyn Talcott, *A Simplifier for Untyped Lambda Expressions*, 28 pages, November 1990. $10.00 **+**

1338. STAN-CS-90-1338, Ramsey W. Haddad, *Triangularization: A Two-Processor Schedule Problem*, 126 pages, November 1990. $15.00 **+**

1339. STAN-CS-90-1339, Taleen Nazarian, *Bibliography, Department of Computer Science Technical Reports, 1963-1990*, 86 pages, December 1990. $2.00 **M**

1340. STAN-CS-90-1340, I. Mason, J.D. Pehoushek, C. Talcott, J. Weening, *Programming in QLisp*, 59 pages, November 1990. $10.00 **+**

1341. STAN-CS-90-1341, G. Wiederhold, P. Wagner, Stefano Ceri, *Towards Megaprogramming*, 45 pages, November 1990. $10.00 **+**

1342. STAN-CS-90-1342, Vaughan Pratt, *Modeling Concurrency with Geometry*, 13 pages, November 1990. $10.00 **+**

1343. STAN-CS-90-1343, Vaughan Pratt, *Action Logic and Pure Induction*, 23 pages, November 1990. $10.00 **+**

1344. STAN-CS-90-1344, D.R. Cheriton, H.A. Goosen, P.D. Boyle, *ParaDiGM: A Highly Scalable Shared-Memory Multi-Computer Architecture*, 19 pages, November 1990. $10.00 **+**

1345. STAN-CS-90-1345, Jean-Paul Laumond, *Nonholmic Motion Planning versus Controllability via the Multibody Car System Example*, 52 pages, December 1990. $10.00 **+**

1346. STAN-CS-90-1346, Byung S. Lee, *Efficiency in Instantiating Objects from Relational Databases Through Views*, 147 pages, December 1990. $15.00 **+**

1347. STAN-CS-91-1347, Arif Merchant, *Analytical Models for the Performance Analysis of Banyan Networks*, 120 pages, January 1991. $15.00 **+**

1348. STAN-CS-91-1348, Arif Merchant, *A Markov Chain Approximation for the Analysis of Banyan Networks*, 16 pages, January 1991. $10.00 **+**

1349. STAN-CS-91-1349, Arif Merchant, *Settling Time Bounds for M|G|1 Queues*, 6 pages, December 1990. $10.00 **+**

1350. STAN-CS-91-1350, E. Chang, S.J. Phillips, J.D. Ullman, *A Programming and Problem Solving Seminar*, 99 pages, February 1991. $10.00 **+**

1351. STAN-CS-91-1351, L. Zhu, A.M. Keller, G. Wiederhold, *Sequence vs. Pipeline Parallel Multiple Joins in Paradata*, 79 pages, February 1991. $10.00 **+**

1352. STAN-CS-91-1352, R. Martin Chavez, *Architectures and Approximation Algorithms for Probabilistic Systems*, 214 pages, February 1991. $20.00 **+**

1353. STAN-CS-91-1353, Geoffrey Phipps, *Glue Manual, Version 1.0*, 32 pages, March 1991. $10.00 **+**

1354. STAN-CS-91-1354 (CSLI-91-150 PCD-1), Terry Winograd, *Introduction to the Project on People, Computers, and Design*, 31 pages, April 1991. $5.50 **H**

1355. STAN-CS-91-1355, Ross Casley (thesis), *On the Specification of Concurrent Systems*, 101 pages, February 1991. $15.00 **+**

1356. STAN-CS-91-1356, Yatin Saraiya (thesis), *Subtree Elimination Algorithms in Deductive Databases*, 159 pages, January 1991. $15.00 **+**

1357. STAN-CS-91-1357, Jens Christensen (thesis), *Automatic Abstraction Planning*, 140 pages, March 1991. $15.00 **+**

1358. STAN-CS-91-1358, Andrew V. Goldberg, *Combinatorial Optimization Lecture Notes for CS363/OR349 Winter 1991*, 78 pages, March 1991. $10.00 **+**

1359. STAN-CS-91-1359, R. Alur, T. Feder, T. Henzinger, *The Benefits of Relaxing Punctuality*, 38 pages, May 1991. $10.00 **+**

1360. STAN-CS-91-1360, Thomas A. Henzinger, *Sooner is Safer Than Later*, 9 pages, May 1991. $10.00 **+**

1361. STAN-CS-91-1361, Anil Ramesh Gangolli (thesis), *Convergence Bounds for Markov Chains and Applications to Sampling*, 153 pages, May 1991. $2.00 **M**

1362. STAN-CS-91-1362, Tomas Feder (thesis), *Stable Networks and Product Graphs*, 220 pages, May 1991. $2.00 **M**

1363. STAN-CS-91-1363, Cary G. Gray (thesis), *Performance and Fault-Tolerance in a Cache for Distributed File Service*, 140 pages, May 1991. $15.00 **+**

1364. STAN-CS-91-1364 (CSLI-91-152 PCD 2), Terry Winograd, Finn Kensing, *The Language/Action Approach to the Design of Computer-Support for Cooperative Work: A*

Preliminary Study in Work Mapping, 31 pages, April 1991. $5.50 **H**

1365. STAN-CS-91-1365, Eunok Paek (thesis), *A Justification-based Theory of Explanation*, 103 pages, May 1991. $15.00 **+**

1366. STAN-CS-91-1366, Edith Cohen (thesis), *Combinatorial Algorithms for Optimization Problems*, 168 pages, June 1991. $15.00 **+**

1367. STAN-CS-91-1367, Edward Herskovits (thesis), *Computer-Based Probabilistic-Network Construction*, 215 pages, June 1991. $20.00 **+**

1368. STAN-CS-91-1368, Joseph Friedman (thesis), *Computational Aspects of Compliant Motion Planning*, 122 pages, June 1991. $15.00 **+**

1369. STAN-CS-91-1369, T. Fischer, A.V. Goldberg, S. Plotkin, *Approximating Matchings in Parallel*, 5 pages, June 1991. $10.00 **+**

1370. STAN-CS-91-1370, Misao Nagayama, Carolyn Talcott, *An NQTHM Mechanization of "An Exercise in the Verification of Multi-Process Programs"*, 84 pages, June 1991. $10.00 **+**

1371. STAN-CS-91-1371, Peter Rathmann (thesis), *Nonmonotonic Semantics for Partitioned Knowledge Bases*, 116 pages, July 1991. $15.00 **+**

1372. STAN-CS-91-1372, A.V. Goldberg, *A Natural Randomization Strategy for Multicommodity Flow and Related Algorithms*, 11 pages, July 1991. $10.00 **+**

1373. STAN-CS-91-1373, Hemant Ratubhai Kanakia (thesis), *High-Performance Host Interfacing for Packet-Switched Networks*, 53 pages, July 1991. $10.00 **+**

1374. STAN-CS-91-1374, J. Orlin, S. Plotkin, E. Tardos, *Polynomial Dual Network Simplex Algorithms*, 28 pages, August 1991. $10.00 **+**

1375. STAN-CS-91-1375, T. Leighton, F. Maketon, S. Plotkin, C. Stein, E. Tardos, S. Tragoudas, *Fast Approximation Algorithms for Multicommodity Flow Problems*, 25 pages, August 1991. $10.00 **+**

1376. STAN-CS-91-1376, Thomas M. Strat (thesis), *Natural Object Recognition*, 156 pages, August 1991. $15.00 **+**

1377. STAN-CS-91-1377 (CSL-TR-91-487), Edward Rothberg, Anoop Gupta, *An Evaluation of Left-Looking, Right-Looking, and Multifrontal Approaches to Sparse Cholesky Factorization and Hierarchical-Memory Machines*, 47 pages, August 1991. $10.00 **+**

1378. STAN-CS-91-1378, Rajeev Alur (thesis), *Techniques for Automatic Verification of Real-Time Systems*, 188 pages, August 1991. $2.00 **M**

1379. STAN-CS-91-1379, Keith Hall (thesis), *A Framework for Change Management in a Design Database*, 185 pages, August 1991. $2.00 **M**

1380. STAN-CS-91-1380, Thomas Henzinger (thesis), *The Temporal Specification and Verification of Real-Time Systems*, 300 pages, August 1991. $2.00 **M**

1381. STAN-CS-91-1381, Y. Hara, A. Keller, P. Rathmann, G. Wiederhold, *Implementing Hypertext Database Relationships Through Aggregations and Exceptions*, 36 pages, September 1991. $10.00 **+**

1382. STAN-CS-91-1382, Katherine A. Morris (thesis), *Subgoal Order for Query Optimization in Logic Databases*, 116 pages, June 1991. $2.00 **M**

1383. STAN-CS-91-1383, Thomas A. Henzinger, Zohar Manna, Amir Pnueli, *Temporal Proof Methodologies for Real-Time Systems*, 49 pages, September 1991. $10.00 **+**

1384. STAN-CS-91-1384, Karen L. Myers (thesis), *Universal Attachment: An Integration Method for Logic Hybrids*, 188 pages, September 1991. $2.00 **M**

1385. STAN-CS-91-1385, Fangzhen Lin (thesis), *A Study of Nonmonotonic Reasoning*, 106 pages, August 1991. $2.00 **M**

1386. STAN-CS-91-1386, Kenneth A. Ross (thesis), *The Semantics of Deductive Databases*, 168 pages, August 1991. $2.00 **M**

1387. STAN-CS-91-1387, Randall Wilson, Achim Schweikard, *Assembling Polyhedra with Single Translations*, 16 pages, October 1991. $10.00 **+**

1388. STAN-CS-91-1388, Kyu-Young Whang, Sang-Wook Kim, Gio Wiederhold, *Dynamic Maintenance of Data Distribution for Selectivity Estimation*, 30 pages, September 1991. $10.00 **+**

1389. STAN-CS-91-1389, Mark Torrance, Paul Viola, *The Agent0 Manual*, 8 pages, October 1991. $10.00 **+**

1390. STAN-CS-91-1390, Yoav Shoham, *Varieties of Context*, 15 pages, October 1991. $10.00 **+**

1391. STAN-CS-91-1391, Yoav Shoham, Alvaro del Val, *A Logic for Perception and Belief*, 23 pages, October 1991. $10.00 **+**

1392. STAN-CS-91-1392, Stefano Ceri, Maurice Houtsma, Arthur Keller, Pierangela Samarati, *A Classification of Update Methods for Replicated Databases*, 17 pages, October 1991. $10.00 **+**

1393. STAN-CS-91-1393, Hendrik A. Goosen (thesis), *Shared Multilevel Caches for Scalable Multiprocessors*, 76 pages, October 1991. $2.00 **M**

1394. STAN-CS-91-1394, Kieran Harty, David Cheriton, *Application-Controlled Physical Memory Using External Page-Cache Management*, 16 pages, October 1991. $10.00 **+**

1395. STAN-CS-91-1395 (CSLI-91-161 PCD-3), Brad Hartfield, Terry Winograd, John Bennett, *Learning HCI Design: Mentoring Project Groups in a Course on Human- Computer Interaction*, 20 pages, December 1991. $3.50 **H**

1396. STAN-CS-91-1396, Daniel Scales, *Parallelizing the OPS5 Matching Algorithm in Qlisp*, 22 pages, October 1991. $10.00 **+**

1397. STAN-CS-91-1397, Shaibal Roy (thesis), *Adaptive Methods in Parallel Databases*, 160 pages, August 1991. $2.00 **M**

1398. STAN-CS-91-1398, David Salesin (thesis), *Epsilon Geometry: Building Rubust Algorithms From Imprecise Computations*, 130 pages, March 1991. $2.00 **M**

1399. STAN-CS-91-1399(KSL-91-74), Ramanathan Guha (thesis), *Contexts: A Formalization and Some Applications*, 280 pages, December 1991. $2.00 **M**

1400. STAN-CS-91-1400, Inderpal Mumick (thesis), *Query Optimization in Deductive and Relational Databases*, 190 pages, December 1991. $2.00 **M**

1401. STAN-CS-92-1401(CSL-TR-92-503), Edward Rothberg, Anoop Gupta, *The Performance Impact of Data Reuse in Parallel Dense Cholesky Factorization*, 30 pages, January 1992. $10.00 **+**

1402. STAN-CS-92-1402(KSL-91-76), Harold Lehmann (thesis), *A Bayesian Computer-Based Approach to the Physician's Use of the Clinical Research Literature*, 300 pages, December 1991. $2.00 **M**

1403. STAN-CS-92-1403, Andrew Golding (thesis), *Pronouncing Names by a Combination of Rule-Based and Case-Based Reasoning*, 380 pages, October 1991. $2.00 **M**

1404. STAN-CS-92-1404, Zohar Manna, Richard Waldinger, *Fundamentals of Deductive Program Synthesis*, 62 pages, January 1992. $10.00 **+**

1405. STAN-CS-92-1405, Sang Kyun Cha (thesis), *Kaleidoscope: a Model-Based Grammar-*

Driven Menu Interface for Databases, 141 pages, July 1991. $2.00 **M**

1406. STAN-CS-92-1406, Tomasz Radzik, *Newton's Method for Fractional Combinatorial Optimization*, 22 pages, January 1992. $10.00 **+**

1407. STAN-CS-92-1407, Oded Maler, Zohar Manna, Amir Pnueli, *From Timed to Hybrid Systems*, 38 pages, January 1992. $10.00 **+**

1408. STAN-CS-92-1408, Edward Chang, Zohar Manna, Amir Pnueli, *The Safety-Progress Classification*, 60 pages, February 1992. $10.00 **+**

1409. STAN-CS-92-1409, Carey Lee Williamson (thesis), *Minimizing Round-Trip Times for High-Performance Transport Communication*, 129 pages, October 1991. $2.00 **M**

1410. STAN-CS-92-1410, Farid Alizadeh, Andrew Goldberg, *Implementing the Push-Relabel Method for the Maximum Flow Problem on the Connection Machine*, 17 pages, February 1992. $10.00 **+**

1411. STAN-CS-92-1411, Howard Wong-Toi, Gerard Hoffmann, *The Control of Dense Real-Time Discrete Event Systems*, 50 pages, March 1992. $10.00 **+**

1412. STAN-CS-92-1412, Nils Nilsson, *Toward Agent Programs with Circuit Semantics*, 33 pages, January 1992. $10.00 **+**

1413. STAN-CS-92-1413, David Zhu (thesis), *Exploring the Interaction of Geometry and Search in Path Planning*, 203 pages, February 1992. $2.00 **M**

1414. STAN-CS-92-1414, Robert Miller, *Proceedings From the Twenty-Fourth Annual Meeting of the Stanford Computer Forum*, 186 pages, February 1992. $2.00 **M**

1415. STAN-CS-92-1415, Stephen Deering (thesis), *Multicast Routing in a Datagram Internetwork*, 141 pages, December 1991. $2.00 **M**

1416. STAN-CS-92-1416, Randall Wilson (thesis), *On Geometric Assembly Planning*, 154 pages, March 1992. $2.00 **M**

1417. STAN-CS-92-1417, Henri Jacques Suermondt (thesis), *Explanation in Bayesian Belief Networks*, 263 pages, March 1992., $2.00 **M**

1418. STAN-CS-92-1418, Andrew Goldberg, Michael Kharitonov, *On Implementing Scaling Push-Relabel Algorithms for the Minimum Cost Flow Proglems*, 37 pages, March 1992. $10.00 **+**

1419. STAN-CS-92-1419, S. Plotkin, D. Shmoys, E. Tardos, *Fast Approximation Algorithms for Fractional Packing and Covering Problems*, 52 pages, February 1992. $10.00 **+**

1420. STAN-CS-92-1420, Craig Chambers (thesis), *The Design and Implementation of the Self Compiler, an Optimizing Compiler for Object-Oriented Programming Languages*, 246 pages, March 1992. $20.00 **+**

1421. STAN-CS-92-1421, Alexander Wang (thesis), *Fault-Tolerant Computation on Hypercubes*, 148 pages, March 1992. $2.00 **M**

1422. STAN-CS-92-1422(KSL-92-27), Michael Walker (thesis), *Probability Estimation for Classification Trees and DNA Sequence Analysis*, 213 pages, March 1992. $2.00 **M**

1423. STAN-CS-92-1423, C. Dwork, M. Herihy, S. Plotkin, O. Waarts, *Time-Lapse Snapshots*, 19 pages, April 1992. $10.00 **M**

1424. STAN-CS-92-1424, Haruo Takeda, Jean-Claude Latombe, *Planning the Motions of a Mobile Robot in a Sensory Uncertainty Field*, 31 pages, April 1992. $10.00 **M**

1425. STAN-CS-92-1425, Lydia Kavraki, *Computation of Configuration-Space Obstacles Using the Fast Fourier Transform*, 21 pages, April 1992. $10.00 **M**

1426. STAN-CS-92-1426, Olivier Danvy, Carolyn Talcott, *Proceedings of the ACM SIGPLAN*

Workshop on Continuations CW92, 103 pages, June 1992. $15.00 **+**

1427. STAN-CS-92-1427, Andrew Goldberg, Bruce Maggs, Serge Plotkin, *A Parallel Algorithm for Reconfiguring a Multibutterfly Network with Faulty Switches*, 15 pages, April 1992. $10.00 **+**

1428. STAN-CS-92-1428, Anthony Lazanas, Jean-Claude Latombe, *Landmark-Based Robot Navigation*, 54 pages, May 1992. $10.00 **+**

1429. STAN-CS-92-1429, Andrew Goldberg, *Scaling Algorithms for the Shortest Paths Problem*, 11 pages, May 1992. $10.00 **+**

1430. STAN-CS-92-1430 (KSL-90-76), Eric Horvitz (thesis), *Computation and Action Under Bounded Resources*, 320 pages, December 1990. $2.00 **M**

1431. STAN-CS-92-1431, Ben Kao, Hector Garcia-Molina, Daniel Barbara, *Aggressive Transmissions Over Redundant Paths for Time Critical Messages*, 43 pages, May 1992. $10.00 **+**

1432. STAN-CS-92-1432, Yuri Breitbart, Hector Garcia-Molina, Avi Silberschatz, *Overview of Multidatabase Transaction Management*, 38 pages, May 1992. $10.00 **+**

1433. STAN-CS-92-1433, Surajit Chaudhuri (thesis), *Detecting Redundant Tuples During Query Evaluation*, 230 pages, June 1992. $2.00 **M**

1434. STAN-CS-92-1434, Anthony Tomasic, Hector Garcia-Molina, *Performance of Inverted Indices in Distributed Text Document Retrieval Systems*, 25 pages, June 1992. $10.00 **+**

1435. STAN-CS-92-1435, Rajeev Motwani, *Lecture Notes on Approximation Algorithms - Volume I*, 80 pages, June 1992. $10.00 **+**

1436. STAN-CS-92-1436, Terry Winograd, *Computers, Ethics, and Social Responsibility*, 30 pages, July 1992. $4.00 **H**

1437. STAN-CS-92-1437, Geoffrey Phipps (thesis), *Glue: A Deductive Database Programming Language*, 139 pages, July 1992. $2.00 **M**

1438. STAN-CS-92-1438(CSL-TR-92-533), Edward Rothberg, Anoop Gupta, *An Efficient Block-Oriented Approach to Parallel Sparse Cholesky Factorization*, 25 pages, July 1992. $10.00 **+**

1439. STAN-CS-92-1439, Andrew Goldberg, *An Efficient Implementation of a Scaling Minimum-Cost Flow Algorithm*, 21 pages, August 1992. $10.00 **+**

1440. STAN-CS-92-1440), John Woodfill (thesis), *Motion Vision and Tracking for Robots in Dynamic, Unstructured Environments*, 163 pages, August 1992. $2.00 **M**

1441. STAN-CS-92-1441, Achim Schweikard, John Adler, Jean-Claude Latombe, *Motion Planning in Sterotaxic Radiosurgery*, 20 pages, September 1992. $10.00 **+**

1442. STAN-CS-92-1442, Randall H. Wilson, Jean-Claude Latombe, *Reasoning About Mechanical Assembly*, 31 pages, September 1992. $10.00 **+**

1443. STAN-CS-92-1443 (KSL-92-69), P. Pandurang Nayak (thesis), *Automated Modeling of Physical Systems*, 315 pages, September 1992. $2.00 **M**

1444. STAN-CS-92-1444 (CSL-TR-92-542), Aaron J. Goldberg (thesis), *Multiprocessor Performance Debugging and Memory Bottlenecks*, 124 pages, May 1992. $2.00 **M**

1445. STAN-CS-92-1445, Michael Kharitonov, *Cryptographic Hardness of Distribution-Specific Learning*, 24 pages, September 1992. $10.00 **+**

1446. STAN-CS-92-1446, Stefano Ceri, Maurice Houstma, Arthur Keller and Pierangela Samarati, *Independent Updates nad Incremental Agreement in Replicated Databases*, 13 pages, October 1992. $10.00 **+**

1447. STAN-CS-92-1447, Andrew V. Goldberg and Serge Plotkin *Lecture Notes: Topics in Combinatorial Optimization*, 85 pages, October 1992. $10.00 **+**

1448. STAN-CS-92-1448, Roger F. Crew (thesis), *Metric Process Models*, 87 pages, October 1992. $2.00 **M**

1449. STAN-CS-92-1449 (CSL-TR-92-547), Dror Eliezer Maydan (thesis) *Accurate Analysis of Array References*, 144 pages, September 1992. $2.00 **M**

1450. STAN-CS-92-1450, Orli Waarts (thesis) *New Algorithms and Primitives for Multi Processor Coordination*, 165 pages, August 1992. $2.00 **M**

1451. STAN-CS-92-1451, Tomasz Radzik (thesis) *Algorithms for Some Linear and Fractional Combinatorial Optimization Problems*, 100 pages, August 1992. $2.00 **M**

1452. STAN-CS-92-1452, Ben Kao and Hector Garcia-Molina *Deadline Assignment in a Distributed Soft Real-Time System*, 25 pages, October 1992. $10.00 **+**

1453. STAN-CS-92-1453, Ben Kao and Hector Garcia-Molina *Real-Time Communication Over Multiple Standard Networks*, 23 pages, November 1992. $10.00 **+**

1454. , STAN-CS-92-1454, Tak W. Yan and Hector Garcia-Molina *Index Structures for Selective Dissemination of Information*, 48 pages, December 1992. $10.00 **+**

1455. STAN-CS-92-1455 Brian Howard (thesis) *Fixed Points and Extensionality in Typed Funtional Programming Languages*, 66 pages, 1992. $2.00 **M**

1456. STAN-CS-92-1456 Anthony Tomasic and Hector Garcia-Molina *Caching and Database Scaling in Distributed Shared-Nothing Information Retrieval Systems*, 21 pages, December 1992. $10.00 **+**

1457. STAN-CS-92-1457 Oussama Khatib *Inertial Properties in Robotics Manipulation*, 34 pages, December 1992. $10.00 **+**

1458. STAN-CS-92-1458 Randall Wilson, Jean-Claude Latombe and Tomas Lozano-Perez *On the Complexity of Partitoning an Assembly*, 14 pages, December 1992. $10.00 **+**

1459. STAN-CS-92-1459 Edward Rothberg (thesis) *Exploiting the Memory Hierarchy in Sequential and Parellel Sparse Cholesky Factorization*, 153 pages, November 1992. $2.00 **M**

1460. STAN-CS-92-1460 Marcia A. Derr *thesis Adaptive Optimization in a Database Programming Language*, 143 pages, December 1992. $2.00 **M**

1461. STAN-CS-93-1461 Zohar Manna, Amir Pnueli *Models for Reactivity*, 73 pages, January 1993. $10.00 **+**

1462. STAN-CS-93-1462 Jeremy Gunawardena *Periodic Behaviour in Timed Systems With {And,OR} Causality. Part I: Systems of Dimension 1 and 2*, 25 pages, February 1993. $10.00 **+**

1463. STAN-CS-93-1463 Zohar Manna, Amir Pnueli *A Temporal PROOF Methodology for Reactive Systems*, 37 pages, February 1993. $10.00 **+**

1464. *Cryptographic Hardnness of Machine Learning*, 131 pages, May 1993. $2.00 **M**

1465. STAN-CS-93-1473 Ashish Gupta, Inderpal Singh Mumick *Improvement to the PF Algorithm*, 4 pages, May 1993. $10.00 **+**

1466. STAN-CS-93-1474 Jeremy Gunawardena *Min-Max Functions*, 25 pages, June 1993. $10.00 **+**

1467. STAN-CS-93-1475 Karen Pieper (thesis) *Parallelizing Compilers: Implementation and Effectiveness*, 151 pages, June 1993. $2.00 **M**

1468. STAN-CS-93-1476 Andrew Goldberg, Alexander Karzanov *Transitive Fork Environments and Minimum Cost Flows*, 44 pages, June 1993. $10.00 **+**

1469. STAN-CS-93-1477 Wonyun Choi (thesis) *Contingency-Tolerant Robot Motion Planning and Control*, 130 pages, June 1993. $2.00 **M**

1470. STAN-CS-93-1478 Randall Wilson, Lydia Kavraki, Tomas Lozano-Perez, Jean-Claude Latombe *Two-Handed Assembly Sequencing*, 26 pages, June 1993. $10.00 **+**

1471. STAN-CS-93-1479 Shashank Shekhar *Control Uncertainty in Fine Motion Planning*, 110 pages, June 1993. $2.00 **M**

1472. STAN-CS-93-1480 Boris Cherkassky, Andrew Goldberg, Tomas Radzik *Shortest Paths Algorithms: Theory and Experimental Evaluation*, 46 pages, July 1993. $10.00 **+**

1473. STAN-CS-93-1481 Andrew V. Goldberg, Robert Kennedy *Efficient Cost Scaling Algorithm for the Assignment Problem*, 24 pages, July 1993. $10.00 **+**

1474. STAN-CS-93-1482 Alon Levy (thesis) *Irrelevance Reasonig in Knowledge Based Systems*, 201 pages, July 1993. $2.00 **M**

1475. STAN-CS-93-1483 Gideon Avrahami (thesis) *Identification and Analysis of Curves in Digital Images*,

1476. STAN-CS-93-1484 Steven J. Phillips (thesis) *Theory and Applications of Online Algorithms*, 93 pages, August 1993 $2.00 **M** $2.00 **M** $2.00 **M** $2.00 **M** $2.00 **M** $2.00 **M** $2.00 **M**

1477. STAN-CS-93-1485 David Cheriton, Dale Skeen *Understanding the Limitations of Causally and Totally Ordered Communication* , 15 pages, August. $10.00 **+**

1478. STAN-CS-93-1486 Robert van Glabbeek *What is Branching Time Semantics and Why To Use It*, 8 pages, August 1993. $10.00 **+**

1479. STAN-CS-93-1487 Sarah Rebecca Thomas (thesis. *PLACA, An Agent Oriented Programming Language*, 157 pages, September 1993. $2.00 **M**

1480. STAN-CS-93-1488 Haruo Takeda, Cladio Facchinetti, Jean-Claude Latombe *Planninf the Motions of a Mobile Robot in a Sensory Uncertainty Field*, 42 pages, September. $10.00 **+**

1481. STAN-CS-93-1489 Andrew *Path Problems in Skew-Symmetric Graphs*, 31 pages, October 1993. $10.00 **+**

1482. STAN-CS-93-1490 Lydia Kavraki, Jean-Claude Latombe *Randomized Preprocessing of Configuration*, 18 pages, September 1993. $10.00 **+**

1483. STAN-CS-93-1491 Ben Kao, Hector Garcia-Molina *Subtask Deadline Assignment for Complex Distribution Soft Real-Time Tasks*, 25 pages, October 1993. $10.00 **+**

1484. STAN-CS-93-1492 Hakan Jakobsson (thesis) *Tree-Based Techniques for Query Evaluation*, 59 pages, October 1993. $2.00 **M**

1485. STAN-CS-93-1493 Helen Davis *Multiprocessor Simulation: Acheiving Accuracy, Efficiency and Flexibility*, 175 pages, November 1993. $2.00 **M**

1486. STAN-CS-93-1494 Tak Yan, Hector Garcia-Molina *Index Structures for Information Filtering Under the Vector Space Model*, 33 pages, November 1993. $10.00 **+**

1487. STAN-CS-93-1495 Elena Baralis, Jennifer Widom *Using Delta Relations to Optimize Condition Evaluation In Active Databases*, 25 pages, November 1993. $10.00

1488. STAN-CS-93-1496 Barbara Hayes-Roth *An Architecture for Adaptive Intelligent Systems*, 51 pages, December 1993. $10.00 **+**

1489. STAN-CS-93-1497 Robert A. Kutter (thesis) *Optimizing Memory-Based Messaging for Scalable Shared-Memory Multiprcessor* 82 pages, December 1993. $2.00 **M**

1490. STAN-CS-93-1498 David Ash (thesis) *Diagnosis Using Action-Based Hierarchies for Optimal Real-Time Performance* 150 pages, December 1993. $2.00 **M**

1491. STAN-CS-93-1499 Donald Knuth *The Sandwich Theorem* 49 pages, December 1993. $10.00 **+**

Index

Table of Contents