References

Aardal, K., Bixby, R.E., Hurkens, C.A.J. *et al.* (1999) Market split and basis reduction: towards a solution of Cornuejols – Dawande instances, in *Proceedings of Seventh IPCO Conference*, Springer-Verlag, pp. 1–16.

Andrew the self-like the sense of the mean through the one-well that the test the test of the

The straight of the control of the straight of

- Agarwala, R. and Goodson, G.C. (1970) A linear programming approach to designing an optimum tax package. *Operational Research Quarterly*, 21, 181–192.
- Appa, G. (1997) The use of linear programming duality in mixed integer programming. IMA Journal of Mathematics Applied in Business and Industry, 8, 225–242.
- Applegate, D.C., Bixby, R.E., Chvátal, V. and Cook, W.J. (2006) The Travelling Salesman Problem: A Computational Study, Princeton University Press, Princeton (NJ).
- Archibald, T.W., Buchanan, C.S., McKinnon, K.I.M. and Thomas, L.C. (1999) Nested Benders decomposition for reservoir optimisation. *Journal of the Operational Research Society*, **50**, 468–479.
- Atkins, D. (1974) Managerial decentralisation and decomposition in mathematical programming. Operational Research Quarterly, 25, 615-624.
- Aucamp, D.C. and Steinberg, D.I. (1982) The computation of shadow prices in linear programming. *Journal of the Operational Research Society*, 33, 557–565.
- Babayer, D.A. (1975) Mathematical models for optimal timing of drilling on multilayer oil and gas fields. *Management Science*, **21**, 1361–1369.
- Balas, E. (1965) An additive algorithm for solving linear programs with zero-one variables. Operations Research, 13, 517-546.
- Balas, E. (1975) Facets of the knapsack polytope. *Mathematical Programming*, 8, 146–164.
- Balas, E. and Padberg, M.W. (1975) On the set covering problem II. *Operations Research*, **23**, 74–90.
- Balinski, M.L. and Lemarechal, C. (eds) (1975) Mathematical Programming Study 9: Mathematical Programming in Use, North-Holland, Amsterdam.
- Balm, I.R. (1980) LP applications in Scottish agriculture. *Journal of the Operational Research Society*, **31**, 387–392.
- Barth, P. (1995) Logic-Based 0-1 Constraint Programming, Kluwer, Dordrecht.
- Bass, F.M. and Lonsdale, R.T. (1966) An exploration of linear programming in media selection. *Journal of Marketing Research*, 3, 179–188.

- Baston, V.J.D., Rahmouni, M.K. and Williams, H.P. (1991) The practical conversion of linear programmes to network flow models. *European Journal of Operational Research*, **50**, 325–335.
- Beale, E.M.L. (1959) On quadratic programming. Naval Research Logistics Quarterly, 6, 227-243.
- Beale, E.M.L. (1968) Mathematicul Programming in Practice, Pitman, London.
- Beale, E.M.L. (1975) Some uses of mathematical programming systems to solve problems that are not linear. *Operational Research Quarterly*, **26**, 609-618.
- Beale, E.M.L. (1980) Branch and bound methods for numerical optimisation of non-convex functions, in *COMPSTAT 80: Proceedings in Computational Statistics* (eds M.M. Barritt and D. Wishart), Physica Verlag, Wien, pp. 11–20.
- Beale, E.M.L., Beare, G.C. and Tatham, P.B. (1974) The DOAE reinforcement and redeployment study: a case study in mathematical programming, in *Mathematical Programming in Theory and Practice* (eds P.L. Hammer and G. Zoutendijk), North-Holland, Amsterdam.
- Beale, E.M.L., Hughes, P.A.B. and Small, R.E. (1965) Experiences in using a decomposition program. *Computer Journal*, 8, 13–18.
- Beale, E.M.L. and J.A. Tomlin (1969) Special facilities in a general mathematical programming system for non-convex problems using ordered sets of variables, in *Proceedings of the 5th International Conference on Operations Research*, Tavistock, London (ed. Lawrence J.).
- Beale, E.M.L. and Tomlin, J.A. (1972) An integer programming approach to a class of combinatorial problems. *Mathematical Programming*, 1, 339–344.
- Beard, C.N. and McIndoe, C.T. (1970) The determination of the least cost mix of transport aircraft, ships and stockpiled material to provide British forces with adequate strategic mobility in the future, in *Applications of Mathematical Programming Techniques* (ed BealeE.M.L.), English University Press, London.
- Benders, J.F. (1962) Partitioning procedures for solving mixed-variable programming problems. *Numerische Mathematik*, **4**, 238–252.
- Bienstock, D, and McClosky B. (2012) Tightening simple mixed-integer sets with guaranteed bounds, *Mathematical Programming*, 133(1-2): 337-363 (2012).
- Bixby, R.E. and Cunningham, W.H. (1980) Converting linear programmes to network problems. *Mathematics of Operations Research*, 5, 321-357.
- Bockmayr, A. and Kasper, T. (1998) Branch and Infer: a unifying framework for integer and finite domain programming. *INFORMS Journal on Computing*, 10, 287-300.
- Boland, N., Dumitrescu, I., Froyland, G. and Greixer, A. (2009) LP disaggregation approaches to solving the open pit mining production scheduling problem with block processing selectivity. *Computers and Operations Research*, 36, 1064–1089.
- Bollapragada, S., Ghattas, O. and Hooker, J.N. (2001) Optimal design of truss structures by mixed logical and integer programming. *Operations Research*, **49**, 49–51.
- Bradley, G.H. (1971) Transformation of integer programs to knapsack problems. *Discrete Mathematics*, 1, 29–45.
- Bradley, G.H. (1975) Survey of deterministic networks. AIIE Transactions, 7, 222-234.
- Bradley, G.H., Hammer, P.L. and Wolsey, L. (1974) Coefficient reduction for inequalities in 0-1 variables. *Mathematical Programming*, 7, 263-282.

- Brailsford, S.C., Hubbard, P.M., Smith, B. and Williams, H.P. (1996) The Progressive Party problem: a difficult problem of combinatorial optimisation. *Computers and Operations Research*, **23**, 845–856.
- Brearley, A. L. (1975) An investigation into the effects of different algorithmic heuristics on different formulations of the paint blending problem. Working paper 27. School of Industrial and Business Studies, Unversity of Warwick, UK.
- Brearley, A.L., Mitra, G. and Williams, H.P. (1975) Analysis of mathematical programming problems prior to applying the simplex algorithm. *Mathematical Programming*, **8**, 54–83.
- Buchanan, J.T. and McKinnon, K.I.M. (1987) An animated interactive modelling system for decision support, in *Proceedings of IFORS* 87 (ed G. Rand), North-Holland, Amsterdam.
- Butler, M., Williams, H.P. and Yarrow, L.-A. (1997) The 2-period travelling salesman problem applied to milk collection in Ireland. *Computational Optimization and Applications*, 7, 291–306.
- Catchpole, A.R. (1962) An application of LP to integrated supply problems in the oil industry. *Operational Research Quarterly*, 13, 163–169.
- Chandru, V. and Hooker, J.N. (1999) Optimization Methods for Logical Inference, John Wiley & Sons, Inc., New York.
- Chang, Y. and Sahinidis, N.V. (2011) An integer programming approach to DNA sequence assembly. Computational Biology and Chemistry, 35(4), 251–8.
- Charnes, A. and Cooper, W.W. (1959) Chance constrained programming. *Management Science*, 6, 73–79.
- Charnes, A. and Cooper, W.W. (1961a) Multicopy traffic models, in *Theory of Traffic Flow* (ed R. Herman), Elsevier, Amsterdam.
- Charnes, A. and Cooper, W.W. (1961b) Management Models and Industrial Applications of Linear Programming, John Wiley & Sons, Inc., New York.
- Charnes, A., Cooper, W.W., Devon, J.K. et al. (1968) A goal programming model for media planning. Management Science, 14, B431-B436.
- Charnes, A., Cooper, W. W., Niehaus, R. J. and Sholtz, D. (1975) A model and a program for manpower management and planning. Graduate School of Industrial Administration Reprint No. 383, Carnegie Mellon University.
- Charnes, A., Cooper, W.W. and Rhodes, E. (1978) Measuring the efficiency of decision making units. European Journal of Operational Research, 2, 429-444.
- Cheshire, M.K., McKinnon, K.I.M. and Williams, H.P. (1984) The efficient allocation of private contractors to public works. *Journal of the Operational Research Society*, **35**, 705–709.
- Christiansen, M., Fagerholt, K., Nygreen, B. and Ronen, D. (2007) Maritime transportation, in *Handbook in OR and MS*, Vol. **14** (eds C. Barnhart and G. Laporte), Elsevier, Amsterdam.
- Christofides, N. (1975) Graph Theory, An Algorithmic Approach, Academic Press London, London.
- Chvátal, V. and Hammer P.L. (1975) Aggregation of inequalities in integer programming. Paper presented at Workshop on Integer Programming, Bonn, September.
- Claus, A. (1984) A new formulation for the travelling salesman problem. SIAM Journal of Algebraic Discrete Methods, 5, 21-25.

- Corner, L.J. (1979) Linear programming: some unsuccessful applications. *Omega*, 7, 257-262.
- Crowder, H., Johnson, E.L. and Padberg, M.W. (1983) Solving large-scale zero-one linear programming problems. *Operational Research*, 31, 803-834.
- Daniel, R.C. (1973) Phasing out capital equipment. Operational Research Quarterly, 24, 113-116.
- Daniel, R.C. (1978) Reducing computational effort in solving a hard integer programme. *ACM SIGMAP Bulletin*, (25), 39-44.
- Dantzig, G.B. (1951) Application of the simplex method to a transportation problem, in *Activity Analysis of Production and Allocation* (ed T.C. Koopmans), John Wiley & Sons, Inc., New York.
- Dantzig, G. B. (1955) Optimal solution of a dynamic Leontief model with substitution. Rand report RM-1281-1. The Rand Corporation, Santa Monica, CA.
- Dantzig, G.B. (1963) Linear Programming and Extensions, Princeton University Press, Princeton, NJ.
- Dantzig, G. B. (1969) A hospital admission problem. Technical report No. 69–15. Stanford University, California.
- Dantzig, G.B., Fulkerson, D.R. and Johnson, S.M. (1954) Solutions of a large scale travelling salesman problem. *Operations Research*, 2, 393-410.
- Darby-Dowman, K. and Little, J. (1998) Properties of some combinatorial problems and their effect on the performance of integer programming and constraint logic programming. *INFORMS Journal on Computing*, **10**, 276–286.
- Dash Associates (1993) XPRESS-MP Reference Manual, Dash Associates, Blisworth, UK.
- Davies, G.S. (1973) Structural control in a graded manpower system. *Management Science*, **20**, 76–84.
- Dempster, M. (1980) Stochastic Programming, Academic Press, London.
- Desrosiers, J., Soumis, F. and Desrosiers, M. (1984) Routing with time windows by column generation. *Networks*, 14, 545-565.
- Dijkstra, E.W. (1959) A note on two problems in connection with graphs. *Numerische Mathematik*, 1, 269-271.
- Dorfman, R.P.A., Samuelson, P.A. and Solow, R.M. (1958) Linear Programming and Economic Analysis, McGraw-Hill, New York.
- Duffin, R.J., Peterson, E.L. and Zener, C. (1968) Geometric Programming: Theory and Application, John Wiley & Sons, Inc., New York.
- Dyson, R.G. (1980) Maximin programming, fuzzy linear programming and multicriteria decision making. *Journal of the Operational Research Society*, 31, 263-267.
- Edmonds, J. (1965) Maximum matching and a polyhedron with 0-1 vertices. Journal of Research of the National Bureau of Standards, 69B, 125-130.
- Eilon, S., Watson-Gandy, C.D.T. and Christofides, N. (1971) Distribution Management: Mathematical Modelling and Practical Analysis, Griffin, London.
- Eisemann, K. (1957) The trim problem. Management Science, 3, 279-284.
- Engel, J.F. and Warshaw, M.R. (1964) Allocating advertising dollars by linear programming. *Journal of Advertising Research*, 5, 42-48.
- Fabian, T. (1967) Blast furnace production planning a linear programming example. Management Science, 14, B1-B27.

- Fanshel, S. and Lynes, E.S. (1964) Economic power generation using linear programming. AIEE Transactions on Power Apparatus Systems, 83, 347–356.
- Farrell, M.J. (1957) The measurement of productive efficiency. *Journal of the Royal Statistical Society, Series A*, **120**, 253–290.
- Ferreira, C.E., Grötschel, M., Kiefl, S. et al. (1993) Some integer programs arising in the design of mainframe computers. ZOR-Methods and Models of Operations Research, 38, 77–100.
- Feuerman, M. and Weiss, H. (1973) A mathematical programming model for test construction and scoring. *Management Science*, 19, 961–966.
- Finke, G., Claus, A. and Gunn, E. (1983) A two-commodity network flow approach to the travelling salesman problem, in *Combinatorics, Graph Theory and Computing*, Proceedings of the 14th South Eastern Conference, Atlantic University, Florida.
- Fisher, W.D. and Schruben, L.W. (1953) Linear programming applied to feed-mixing under different price conditions. *Journal of Farm Economics*, 35, 471–483.
- Fokkens, B. and Puylaert, M. (1981) A linear programming model for daily harvesting operations at the large-scale grain farm of the Ijsselmeerpolders Development Authority. *Journal of the Operational Research Society*, 32, 535-548.
- Ford, L. R. and Fulkerson, D. R. (1956) Solving the Transportation Problem, Rand Report RM-1736, The Rand Corporation, Santa Monica, CA.
- Ford, L.W. and Fulkerson, D.R. (1962) Flows in Networks, Princeton University Press, Princeton, NJ.
- Forrest, J.J.H., Hirst, J.P.H. and Tomlin, J.A. (1974) Practical solution of large mixed integer programming problems with UMPIRE. *Management Science*, **20**, 736–773.
- Forrester, R.J. and Greenberg, H.J. (2008) Quadratic binary programming models in computational biology. *Algorithmic Operations Research*, 3, 110–129.
- Fourer, R. (1983) Modelling languages versus matrix generators for linear programming. ACM Transactions on Mathematical Software, 9, 143–183.
- Fourer, R. (1998) Extending a general-purpose algebra modelling language to combinatorial optimization: a logic programming approach, in *Advances in Computational and Stochastic Optimization, Logic Programming and Heuristic Search* (ed D.L. Woodruff), Kluwer, Boston, MA.
- Fox, K.R., Gavish, B. and Graves, S.C. (1980) An *n*-constraint formulation of the (time-dependent) travelling salesman problem. *Operations Research*, **28**, 1018–1021.
- Garfinkel, R.S. and Nemhauser, G.L. (1970) Optimal political districting by implicit enumeration techniques. *Management Science*, 16, B495–B508.
- Garfinkel, R.S. and Nemhauser, G.L. (1972) Integer Programming, John Wiley & Sons, Inc., New York.
- Garver, L.L. (1963) Power scheduling by integer programming. *IEEE Transactions on Power Apparatus and Systems*, **81**, 730–735.
- Gavish, B. and Graves, S. C. (1978) The travelling salesman problem and related problems. Working paper OR-078-78. Operations Research Center, Massachusetts Institute of Technology, Cambridge, MA.
- Geoffrion, A.M. (1969) An improved implicit enumeration approach for integer programming. *Operations Research*, 17, 437–454.
- Geoffrion, A.M. and Marsten, R.E. (1972) Integer programming: a framework and state-of-the-art survey. *Management Science*, 18, 465–491.

- Gilmore, P.C. and Gomory, R.E. (1961) A linear programming approach to the cutting stock problem part I. *Operations Research*, **9**, 849–859.
- Gilmore, P.C. and Gomory, R.E. (1963) A linear programming approach to the cutting stock problem part II. *Operations Research*, 11, 863–888.
- Gilmore, P.C. and Gomory, R.E. (1965) Multistage cutting stock problems of two and more dimensions. *Operations Research*, 13, 94–120.
- Glassey, R. and Gupta, V. (1974) A linear programming analysis of paper recycling. Management Science, 21, 392-408.
- Glen, J.J. (1980) A parametric programming method for beef cattle ration formulation. Journal of the Operational Research Society, 31, 689-698.
- Glen, J.J. (1988) A mixed integer programming model for fertilizer policy evaluation. European Journal of Operational Research, 35, 165-171.
- Glen, J.J. (1995) Sustainable yield analysis in a multicohort single species fishery: a mathematical programming approach. *Journal of the Operational Research Society*, **46**, 1052–1062.
- Glen, J.J. (1996) A development planning model for deer farming. *Agricultural Systems*, **51**, 317–337.
- Glen, J.J. (1997) An infinite horizon mathematical programming model of a multicohort single species fishery. *Journal of the Operational Research Society*, **48**, 1095–1104.
- Glover, F. (1975) Improved linear integer programming formulations of non-linear integer problems. *Management Science*, **22**, 455–459.
- Glover, F., Hultz, J., Klingman, D. and Stutz, J. (1978) Generalized networks: a fundamental computer-based planning tool. *Management Science*, **24**, 1209–1220.
- Glover, F. and Mulvey, J. (1980) Equivalence of the 0-1 integer programming problem to discrete generalized and pure networks. *Operations Research*, **28**, 829-835.
- Glover, F. and Klingman, D. (1977) Network applications in industry and government. *AIIE Transactions*, **9**, 363–376.
- Goffin, J.-L. and Rousseau, J.-M. (eds) (1982) Mathematical Programming Study 20: Applications, North-Holland, Amsterdam.
- Gomory, R.E. (1958) Outline of an algorithm for integer solutions to linear programs. Bulletin of the American Mathematical Society, 64, 275–278.
- Gomory, R.E. and Baumol, W.J. (1960) Integer programming and pricing. *Econometrica*, **28**, 521–550.
- Gondzio, J. and Grothey, A. (2006) Direct solution of linear systems of size 10⁹ arising in optimization and interior point methods, in *Parallel processing and applied mathematics PPAM*, Lecture notes in computer science, Vol. **3911** (eds R. Wyrzykowski *et al.*), pp. 513–525.
- Granot, F. and Hammer, P.L. (1972) On the use of Boolean functions in 0–1 programming. *Methods of Operations Research*, 12, 154–184.
- Greenberg, H. and Morrison, T. (2008) Robust optimization, Chapter 14, in *Operations Research and Management Science Handbook* (ed A.R. Ravindran), CRC Press, Boca Raton, FL.
- Greenberg, H. (1986) A natural language discourse model to explain linear programming models, Technical Report, University of Colorado, Denver, CO.
- Greenberg, H.J. (1993a) How to analyse results of linear programs, part 1: preliminaries. *Interfaces*, **23**, 56–57.

- Greenberg, H.J. (1993b) How to analyse results of linear programs, Part 2: Price interpretation. *Interfaces*, 23, 97–114.
- Greenberg, H.J. (1993c) How to analyse results of linear programs, Part 3: Infeasibility diagnosis. *Interfaces*, 23, 120–139.
- Greenberg, H.J. (1994) How to analyse results of linear programs, Part 4: Forcing substructures. *Interfaces*, **24**, 121–130.
- Greenberg, H.J. (1998) An annotated bibliography for post-solution analysis in mixed integer and combinatorial optimization, in *Advances in Computational and Stochastic Optimization, Logic Programming and Heuristic Search* (ed D.L. Woodruff), Kluwer, Boston, MA.
- Greenberg, H., Lucas, C. and Mitra, G. (1987) Computer assisted modelling and analysis of linear programming problems; towards a unified framework. *IMA Journal of Mathematics in Management*, 1, 251–266.
- Greenberg, H. and Murphy, F.H. (1992) A comparison of mathematical programming modeling systems. *Annals of Operations Research*, 38, 177-238.
- Hammer, P.L. and Peled, U.N. (1972) On the maximisation of a pseudo-Boolean function. Journal of the ACM, 19, 262–282.
- Hammer, P.L., Johnson, E.L. and Peled, U.N. (1975) Facets of regular 0-1 polytopes. *Mathematical Programming*, **8**, 179-206.
- Hammer, P.L. and Rudeanu, S. (1968) Boolean Methods in Operations Research and Related Areas, Springer-Verlag, Berlin.
- Harvey, A. (1970) Factors making for implementation success and failure. *Management Science*, **16**, B312–B321.
- Held, M. and Karp, R.M. (1971) The travelling salesman problem and minimum spanning trees. *Mathematical Programming*, 1, 6–25.
- Heroux, R.L. and Wallace, W.A. (1973) Linear programming and financial analysis of the new community development process. *Management Science*, 19, 857–872.
- Hitchcock, F.L. (1941) Distribution of a product from several sources to numerous localities. *Journal of Mathematical Physics*, **20**, 224–230.
- Ho, J.K. and Loute, E. (1981) An advanced implementation of the Dantzig Wolfe decomposition algorithm for linear programming. *Mathematical Programming*, **20**, 303–326.
- Hooker, J.N. (2000) Logic Based Methods for Optimization, Wiley Inter-Science, New York.
- Hooker, J.N. (2007) Integrated Methods for Optimization, Springer.
- Hooker, J.N. (2011) Hybrid modeling, in *Hybrid Optimization: The Ten Years of CPAIOR* (eds M. Milano and P. Van Hentenryck), Springer, New York, pp. 11–62.
- Hooker, J. N. and Williams H.P. (2012) Combining equity and utilitarianism in a mathematical programming model, *Management Science*. 10.1287/mnsc.1120.1515, 0025-1909.
- Hooker, J.N. (1998) Constraint satisfaction methods for generating valid cuts, in *Advances* in *Computational and Stochastic Optimization, Logic Programming and Heuristic Search* (ed D.L. Woodruff), Kluwer, Boston, MA, pp. 1–30.
- Hooker, J.N. and Yan, H. (1999) Tight representation of logic constraints as cardinality rules. *Mathematical Programming*, **85**, 363–377.

- IBM (1979) Mathematical Programming System Extended/370 (MPSX/370), Program Reference Manual, Form number SH19-1095, IBM Corporation, New York.
- Jack, W. (1985) An interactive graphical approach to linear financial models. *Journal of the Operational Research Society*, 36, 367–382.
- Jeffreys, M. (1974) Some ideas on formulation strategies for integer programming problems so as to reduce the number of nodes generated by a branch and bound algorithm. Working paper 74/2, Wootton, Jeffreys and Partners, London.
- Jensen, P.A. and Barnes, J.W. (1980) Network Flow Programming, John Wiley & Sons, Inc., New York.
- Jeroslow, R. (1985) An Extension of Mixed-Integer Programming Models and Techniques to Some Database and artificial intelligence settings. Research report. Georgia Institute of Technology, Atlanta, GA.
- Jeroslow, R. (1987) Representability in mixed integer programming. *Discrete Applied Mathematics*, 17, 223–243.
- Jeroslow, R. (1989) Logic-Based Decision Support: Mixed Integer Model Formulation, Annals of Discrete Mathematics, Vol. 40, North-Holland, Amsterdam.
- Jeroslow, R.G. and Lowe, J.K. (1984) Modelling with integer variables. *Mathematical Programming Studies*, 22, 167–184.
- Jeroslow, R.G. and Lowe, J.K. (1985) Experimental results with the new techniques for integer programming formulations. *Journal of the Operational Research Society*, **36**, 393-403.
- Jones, W.G. and Rope, C.M. (1964) Linear programming applied to production planning a case study. *Operational Research Quarterly*, 15, 293–302.
- Jünger, M., Martin, A., Reinelt, G. and Weismantel, R. (1989) Simultaneous placement in the sea of gates layout style. *Methods of Operations Research*, 62, 275-278.
- Kall, P. and Wallace, S.W. (1994) Stochastic Programming, John Wiley & Sons, Ltd, Chichester.
- Kalvaitis, R. and Posgay, A.G. (1974) An application of mixed integer programming in the direct mail industry. *Management Science*, 20, 788-792.
- Karwan, M.H., Lotfi, V., Telgen, J. and Zionts, S. (1983) Redundancy in Mathematical Programming: A State of the Art Survey, Springer-Verlag, New York.
- Khodaverdian, E., Brameller, A. and Dunnett, R.M. (1986) Semi-rigorous thermal unit commitment for large scale electrical power systems. *IEE Proceedings-C Generation Transmission and Distribution*, 133, 157–164.
- Knolmayer, G. (1982) Computational experiments in the formulation of linear product-mix and non-convex production-investment models. *Computers & Operations Research*, 9, 207–219.
- Kraft, D.H. and Hill, T.W. (1973) The journal selection problem in a university library system. *Management Science*, 19, 613-626.
- Kuhn, H.W. (1955) The Hungarian method for the assignment problem. Naval Research Logistics Quarterly, 2, 83-97.
- Land, A. (1991) Data envelopment analysis, Chapter 5, in *Operations Research in Management* (eds S.C. Littlechild and M.F. Shutler), Prentice Hall, London.
- Land, A.H. and Powell, S. (1979) Computer codes for problems of integer programming, in *Discrete Optimization*, Annals of Discrete Mathematics, Vol. 5 (eds P.L. Hammer, E.L. Johnson and B.H. Korte), North-Holland, Amsterdam, pp. 221–269.

- Laporte, G. (1976) A comparison of two norms in archaeological seriation. *Journal of Archaeological Science*, 3(3), 249–255.
- Lasdon, L.S. (1970) Optimization Theory for Large Systems, Macmillan, New York.
- Lawler, E. (1974) The quadratic assignment problem: a brief review. Paper presented at an Advanced Study Institute on Combinatorial Programming, Versailles, France, September.
- Lawler, E.L., Lenstra, J.K., Rinnooy Kan, A.H.G. and Shmoys, D.B. (eds) (1995) *The Travelling Salesman Problem*, John Wiley & Sons, Ltd, Chichester.
- Lawrence, J.R. and Flowerdew, A.D.J. (1963) Economic models for production planning. *Operational Research Quarterly*, **14**, 11–30.
- Leontief, W. (1951) The Structure of the American Economy, 1919-1931, Oxford University Press, New York.
- Lilien, G.L. and Rao, A.G. (1975) A model for manpower management. *Management Science*, 21, 1447–1457.
- Lockyer, K.G. (1967) An Introduction to Critical Path Analysis, Pitman, London.
- Loucks, O.P., Revelle, C.S. and Lynn, W.R. (1968) Linear programming models for water pollution control. *Management Science*, 14, B166–B181.
- Louwes, S.L., Boot, J.C.G. and Wage, S. (1963) A quadratic programming approach to the problem of the optimal use of milk in the Netherlands. *Journal of Farm Economics*, **45**, 309–317.
- Lucas, C. and Mitra, G. (1988) Computer assisted mathematical programming (modelling) system: CAMPS. *Computer Journal*, **31**, 364–375.
- McColl, W.H.S. (1969) Management and operations in an oil company. *Operational Research Quarterly*, **20**(conference issue), 64–65.
- McDonald, A.G., Cuddeford, G.C. and Beale, E.M.L. (1974) Mathematical models of the balance of care. *British Medical Bulletin*, 30, 262–270.
- McKinnon, K.I.M. and Williams, H.P. (1989) Constructing integer programming models by the predicate calculus. *Annals of Operations Research*, **21**, 227–246.
- Manne, A. (1956) Scheduling of Petroleum Refinery Operations, Harvard Economic Studies, Vol. 48, Harvard University Press, Cambridge, MA.
- Markland, R.E. (1975) Analyzing multi-commodity distribution networks having milling-in-transit features. *Management Science*, **21**, 1405–1416.
- Markowitz, H. (1959) Portfolio Section, Wiley, New York.
- Martin, R.K. (1987) Generating alternative mixed-integer programming models using variable redefinition. *Operations Research*, 35, 820-831.
- Meyer, M. (1969) Applying linear programming to the design of ultimate pit limits. Management Science, 16, B121-B135.
- Meyer, R.R. (1975) Integer and mixed-integer programming models: general properties. Journal of Optimization Theory and Applications, 16, 191–206.
- Miercort, F.A. and Soland, R.M. (1971) Optimal allocation of missiles against area and point defences. *Operations Research*, **19**, 605–617.
- Miller, C.E. (1963) The simplex method for local separable programming, in *Recent Advances in Mathematical Programming* (eds R.L. Graves and P. Wolfe), McGraw-Hill, New York, pp. 89–110.
- Miller, C.E., Tucker, A.W. and Zemlin, R.A. (1960) Integer programming formulation of travelling salesman problems. *Journal of the ACM*, 3, 326–329.

- Miller, D.W. and Starr, M.K. (1960) Executive Decisions and Operations Research, Prentice-Hall, Englewood Cliffs, NJ.
- Mitra, G. (1973) Investigation of some branch-and-bound strategies for the solution of mixed integer linear programs. *Mathematical Programming*, 4, 155-170.
- Muckstadt, J.A. and Koenig, S. (1977) An application of Lagrangian relaxation to scheduling in power generation systems. *Operational Research*, 25, 387-403.
- Müller-Merbach, H. (1987) Entwurf von input-output-Modellen. Proceedings in Operations Research, 7, 18-55.
- Nemhauser, G.L. and Trick, M.A. (1998) Scheduling a major college basketball conference. Operations Research, 46, 1-8.
- Nemhauser, G.L. and Wolsey, L.A. (1988) Integer and Combinatorial Optimization, Wiley, New York.
- Orden, A. (1956) The transhipment problem. Management Science, 2, 276-285.
- Orman, A.J. and Williams, H.P. (2006) A survey of different integer programming formulations of the travelling salesman problem, in *Optimization, Econometric and Financial Analysis*, Advances In Computational Management Science, Vol. 9 (eds C. Gatu and E. Kontoghiorghes), Springer, Berlin.
- Padberg, M.W. (1974) Perfect zero one matrices. *Mathematical Programming*, 6, 180–196.
- Price, W.L. and Piskor, W.G. (1972) The application of goal programming to manpower planning. *Information*, 10, 221–231.
- Proll, L. and Smith, B. (1998) Integer linear programming and constraint programming approaches to a template design problem. *INFORMS Journal on Computing*, 10, 265–276.
- Redpath, A.T. and Wright, D.H. (1981) Optimization procedures for computerised therapy planning, in (ed G. Burger), *Treatment Planning for External Beam Therapy with Neutrons*, Supplement to Strahlentherapie, Vol. 77, Urban and Schwarzenberg, München, pp. 54–59.
- Revelle, C., Feldmann, F. and Lynn, W. (1969) An optimization model of tuberculosis Epidemiology. *Management Science*, 16, B190-B211.
- Rhys, J.M.W. (1970) A selection problem of shared fixed costs and network flows. *Management Science*, 17, 200–207.
- Riley, V. and Gass, S.I. (1958) Bibliography on Linear Programming and Related Techniques, Johns Hopkins University Press, Baltimore, MA.
- Rivett, B.H.P. (1968) Concepts of Operational Research, Watts, London.
- Rose, C.J. (1973) Management science in the developing countries: a comparative approach to irrigation feasibility. *Management Science*, 20, 423-438.
- Rosen, J.B. (1964) Primal partitioning programming for block diagonal matrices. Numerische Mathematik, 6, 250–260.
- Royce, N.J. (1970) Linear programming applied to the production planning and operation of a chemical process. *Operational Research Quarterly*, 21, 61–80.
- Ryan, D. (1992) The solution of massive generalised set partitioning problems in aircrew rostering. *Journal of the Operational Research Society*, **43**, 459-467.
- Salkin, G. and Kornbluth, J. (1973) Linear Programming in Financial Planning and Accounting, Haymarket Publishing, London.

- Shapiro, J.F. (1979) Mathematical Programming: Structures and Algorithms, John Wiley & Sons, Inc., New York.
- Sherali, H.D. (2001) On mixed-integer zero-one representations for separable lower-semicontinuous piecewise-linear functions. *Operations Research Letters*, **28**, 155–160.
- Smith, D. (1973) Linear Programming Models in Business, Polytech Publishers, Stockport, UK.
- Souder, W.E. (1973) Analytical effectiveness of mathematical models for R & D project Section. *Management Science*, **19**, 907–923.
- Spath, H., Gutgesell, W. and Grun, G. (1975) Short term liquidity management in a large concern using linear programming, in *Studies in Linear Programming* (eds H.M. Salkiin and J. Saha), North-Holland/American Elsevier, Amsterdam.
- Srinivason, V. (1974) A transshipment model for cash management decisions. *Management Science*, **20**, 1350–1363.
- Stanley, E.D., Honig, D. and Gainen, L. (1954) Linear programming in bid evaluation. Naval Research Logistics, 1, 48-54.
- Stewart, R. (1971) How Computers Affect Management, Pan Books, London.
- Stone, R. (1960) Input/Output and National Accounts, OECD, Paris.
- Sutton, D.W. and Coates, P.A. (1981) On-line mixture calculation system for stainless steel production by BSC stainless: the least through cost mix system (LTCM). *Journal of the Operational Research Society*, **32**, 165–169.
- Swart, W., Smith, C. and Holderby, T. (1975) Expansion planning for a large dairy farm, in *Studies in Linear Programming* (eds H.M. Salkin and J. Saha), North-Holland/American Elsevier, Amsterdam.
- Thanassoulis, E., Dyson, R.G. and Foster, M.J. (1987) Relative efficiency assessments using data envelopment analysis: an application to data on rates departments. *Journal of the Operational Research Society*, 5, 397–411.
- Thomas, G.S., Jennings, J.C. and Abbott, P. (1978) A blending problem using integer programming on-line. *Mathematical Programming Studies*, 9, 30–42.
- Tomlin, J.A. (1966) Minimum-cost multicommodity network flows. *Operations Research*, **14**, 45–51.
- Vajda, S. (1961) Mathematical Programming, Addison-Wesley, Massachusetts-London.
- Vajda, S. (1975) Mathematical aspects of manpower planning. Operational Research Quarterly, 26, 527-542.
- Van Roy, T.J. and Wolsey, L.A. (1984) Solving Mixed Integer Programs by Automatic Reformulation Core Discussion Paper No. 8432, Center for Operations Research and Econometrics, Université Catholique de Louvain, Belgium.
- Veinott, A.F. and Wagner, H.M. (1962) Optimal capacity scheduling I. *Operations Research*, 10, 518–532.
- Wagner, H.M. (1957) A linear programming solution to dynamic Léontief type models. Management Science, 3, 234–254.
- Wardle, P.A. (1965) Forest management and operational research. *Management Science*, 11, B260-B270.
- Warner, D.M. and Prawda, J. (1972) A mathematical programming model for scheduling nursing personnel in a hospital. *Management Science*, 9, 411–422.

- Wilkinson, E.M. (1971) Archaeological seriation and the travelling salesman problem, in Hodson F.R., Kendal, D.G. and Taut, P. (Eds), *Mathematics in the Archaeological and Historical Sciences*, Edinburgh University Press, 276–285.
- Williams, A.C. (1989) Marginal values in mixed integer linear programming. *Mathematical Programming*, **44**, 67–75.
- Williams, H.P. (1974) Experiments in the formulation of integer programming problems. *Mathematical Programming Studies*, 2, 180–197.
- Williams, H.P. (1977) Logical problems and integer programming. Bulletin of the Institute of Mathematics and its Applications, 13, 18–20.
- Williams, H.P. (1978) The reformulation of two mixed integer programming problems. *Mathematical Programming*, **14**, 325–331.
- Williams, H.P. (1979) The economic interpretation of duality for practical mixed integer programming models, in *Survey of Mathematical Programming* (ed A. Prekopa), North-Holland, Amsterdam.
- Williams, H.P. (1981) Reallocating the cost of dependent decisions. *Applied Economics*, 13, 89–98.
- Williams, H.P. (1982) Models with network duals. *Journal of the Operational Research Society*, 33, 161–169.
- Williams, H.P. (1985) Model Building in Linear and Integer Programming, in *Proceedings* of Nato Advanced Study Institute on Mathematical Programming (ed K. Schittkowski), Springer, Berlin, pp. 25–35.
- Williams, H.P. (1987) Linear and integer programming applied to the propositional calculus. *International Journal of Systems Research and Information Science*, 2, 81–100.
- Williams, H.P. (1993) Model Solving in Mathematical Programming, John Wiley & Sons, Ltd, Chichester.
- Williams, H.P. (1995) Logic applied to integer programming and integer programming applied to logic. European Journal of Operational Research, 81, 605-616.
- Williams, H.P. (1997) Integer programming and pricing revisited. IMA Journal of Mathematics Applied in Business and Industry, 8, 203–214.
- Williams, H.P. (2009) Logic and Integer Programming, Springer, New York.
- Williams, H.P. and Brailsford, S.C. (1997) The splitting of variables and constraints in the formulation of integer programming models. *European Journal of Operational Research*, **100**, 623–628.
- Williams, H.P. and Brailsford, S.C. (1999) Computational logic and integer programming, in *Advances in Linear and Integer Programming* (ed J. Beasley), Oxford University Press, Oxford, pp. 249–281.
- Williams, H.P. and Munford, A.G. (1999) Formulae for the L_0 , L_1 and L_∞ norms. Journal of Statistical Computation and Simulation, 63, 121–141.
- Williams, H.P. and Redwood, A.C. (1974) A structured linear programming model in the food industry. *Operational Research Quarterly*, **25**, 517–527.
- Williams, H.P. and Yan, H. (2001) Representations of the all_different predicate of constraint satisfaction in integer programming. *INFORMS Journal on Computing*, 13, 96–103.
- Wilson, E.J.G. and Willis, R.J. (1983) Scheduling of telephone betting operators a case study. *Journal of the Operational Research Society*, 33, 999–1006.

- Wilson, J.M. and Williams, H.P. (1998) Connections between integer linear programming and constraint logic programming. *INFORMS Journal on Computing*, **10**, 261–264.
- Wolsey, L.A. (1975) Faces for a linear inequality in 0-1 variables. *Mathematical Programming*, **8**, 165-178.
- Wolsey, L.A. (1976) Facets and strong valid inequalities for integer programs. *Operations Research*, **24**, 367–372.
- Wolsey, L.A. (1989) Strong formulations for mixed integer programming: a survey. *Mathematical Programming*, **45**, 173–191.
- Wong, R.T. (1980) Integer programming formulations of the travelling salesman problem. Proceedings of the IEEE Conference on Circuits and Computers. pp. 149–152.
- Young, W., Fergusson, J.G. and Corbishley, B. (1963) Some aspects of planning in coal mining. *Operational Research Quarterly*, 14, 31–45.
- Yunes, T., Aron, I.D. and Hooker, J.N. (2010) An integrated solver for optimization problems. *Operations Research*, **58**(2), 342–356.