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## Working Papers

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# Working Papers

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*In response to the interest expressed by many members of TIMS, we shall list working papers by title and author. Any interested author of a working paper should send a copy of it to the Working Papers editor. Any working paper which is received by the editor will be listed without comment. It is hoped that this will provide better communication of the kind of work which is in progress and will permit direct contact among various persons who may be pursuing similar directions in their research period. Requests for working papers should be directed to the authors' organization.*

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GARFINKEL, R. S. AND YU, P. L., "A Primal-Dual Surrogate Simplex Algorithm: Comparison with the Criss Cross Method," Revised May 1974, Working Paper CSS 73-12, Center for System Science, University of Rochester, Rochester, New York.

*The following papers were received from the Graduate Program in Operations Research and Department of Chemical Engineering, North Carolina State University, Raleigh, North Carolina 27607:*

GRUVER, W. A., "Optimal Impulsive Trajectory Rendezvous Using Projection-Restoration," January 1975, O.R. Report No. 99.

SEN, P. K. AND BHATTACHARAYYA, "Asymptotic Normality of the Extremum of Certain Sample Functions," February 1975, O.R. Report No. 100.

*The following paper was received from the Graduate School of Industrial Administration, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213:*

BALAS, E. AND ZEMEL, E., "Facets of the Knapsack Polytope from Minimal Covers," December 1974, Management Sciences Research Report No. 352.

ZEMEL, E., "Lifting the Facets of 0-1 Polytopes," December 1974, Management Sciences Research Report No. 354.

*The following papers were received from the Operations Research Center, College of Engineering, University of California, Berkeley, California 94720:*

ALKAN, A. U., "The Efficient Paths to Infinity in Closed Loop Leontief Models," December 1974, ORC 74-37.

BARLOW, R. E. AND PROSCHAN, F., "Theory of Maintained Systems: Distribution of Time to First System Failure," December 1974, ORC 74-36.

BENVENISTE, L. M., "A Complete Characterization of Efficiency for a General Capital Accumulation Model," December 1974, ORC 74-38.

CHATTERJEE, P., "Fault Tree Analysis: Reliability Theory and Systems Safety Analysis," November 1974, ORC 74-34.

*The following papers were received from the European Institute for Advanced Studies in Management, Place Stéphanie 20 B-1050 Brussels, Belgium:*

BULTEZ, A. V. AND NAERT, P. A., "Consistent Sum-Constrained Models," January 1975, Working Paper No. 75-1.

WALLENIUS, J. AND ZIONTS, S., "Some Tests of an Interactive Programming Method for Multicriterion Optimization and an Attempt at Implementation," January 1975, Working Paper No. 75-3.

ZIONTS, S., "A Deterministic Cash Management Problem," January 1975, Working Paper No. 75-2.

- AND WALLENIS, J., "On Finding the Subset of Efficient Vectors of an Arbitrary Set of Vectors," January 1975, Working Paper No. 75-4.
- "Management Under Discontinuity, Proceedings from a Conference at INSEAD," Fontainebleau (June 10-12, 1974), January 1975, Report 75-1.

*The following papers were received from the Department of Operations Research, College of Engineering, Cornell University, Ithaca, New York 14853:*

- BELL, D. E. AND FISHER, M. L., "Improved Integer Programming Bounds Using Intersections of Corner Polyhedra," October 1974, Operations Research Technical Report No. 235.
- FISHER, M. L., "A Dual Algorithm for the One-Machine Scheduling Problem," December 1974, Operations Research Technical Report No. 243.
- AND JAICKUMAR, R., "An Algorithm for the Space Shuttle Scheduling Problem," November 1974, Operations Research Technical Report No. 237.

*The following papers were received from the Bureau of Business Research and Service, Graduate School of Business, The University of Wisconsin, Madison, Wisconsin 53706:*

- CHURCHILL, G. A. AND HUNT, S. D., "Sources of Funds and Franchisee Success," November 1973, Reprint No. 75.
- CUMMINGS, L. L., "A Field Experimental Study of the Effects of Two Performance Appraisal Systems," 1973, Reprint No. 76.
- GERWIN, D. AND CHRISTOFFEL, W., "Organizational Structure and Technology: A Computer Model Approach," August 1974, Reprint No. 82.
- HAUGEN, R. A. AND WICHERN, D. W., "The Diametric Effects of the Capital Gains Tax on the Stability of Stock Prices," September 1973, Reprint No. 73.
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- LOVE, R. F. AND KRAEMER, S. A., "A Dual Decomposition Method for Minimizing Transportation Costs in Multi-Facility Location Problems," 1973, Reprint No. 74.
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*The following paper was received from the Industrial and Systems Engineering Department, University of Florida, Gainesville, Florida 32611:*

- MUTH, E. J., "Modeling and System Analysis of Multistation Closed-Loop Conveyors," February 1975, Research Report 75-1.

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- CHURCHILL, G., "Linear Attitude Models: A Study of Predictive Ability," November 1972, Reprint No. 68.
- HOFFMAN, T. R., "Assembly Line Balancing with a Precedence Matrix," 1963, Old Series Reprint.
- , "Optimization Criteria and Assembly Line Balancing by Digital Computer," February 1961, Wisconsin Commerce Reports, Vol II, No. 3, \$1.00.
- KRAMER, S. A. AND LOVE, R. F., "A Model for Optimizing the Buffer Inventory Storage Size in a Sequential Production System," March 1970, Reprint No. 50.
- KRAINER, R. E., "The Time Profile of Capital Accumulation in the Automobile Industry," January 1969, Reprint No. 13.
- KUBLY, H. E., "The Inspectors and the Foreman, A Study of Quality Control in a Food Processing Plant," June 1966, Wisconsin Commerce Reports, Vol. VII, No. 5, \$1.50.
- LANZENAUER, C. H. V., "A Model for Determining Optimal Profit-Sharing Plans," December 1969, Reprint No. 19.
- LOVE, R. F., "A Computational Procedure for Optimally Locating a Facility with Respect to Several Rectangular Regions," 1972, Reprint No. 66.
- , "The Dual of a Hyperbolic Approximation to the Generalized Constrained Multi-Facility Location

- Problem with  $L_p$  Distances," September 1974, Reprint No. 84.
- , "Locating Facilities in 3-Dimensional Space by Convex Programming," December 1969, Reprint No. 41.
- AND MORRIS, J. G., "Modelling Inter-City Road Distances by Mathematical Functions," March 1972, Reprint No. 60.
- , "Steady-State Solution of the Queueing System  $E_W/M/s$  with Batch Service," 1970, Reprint No. 49.
- ORRBECK, M. G., SCHUETTE, D. R. AND THOMPSON, H. E., "The Effect of Worker Productivity on Production Smoothing," 1968, Reprint No. 5.
- SEARLE, S. R. AND UDELL, J. G., "The Use of Regression on Dummy Variables in Management Research," February 1970, Reprint No. 28.
- WHITAKER, G. R. JR., "A Decision Unit Model of Short Run Production and Inventory Decisions of Manufacturing Firms," April 1966, Wisconsin Commerce Reports, Vol. VII, No. 4, \$1.50.

*The following papers were received from the Center for Mathematical Studies in Business and Economics, The University of Chicago, Chicago, Illinois 60637. A maximum of two Center Reports can be obtained free of charge; additional reports are \$0.50 each. Center Reprints are \$0.50 each. Please enclose payment with order.*

- BABAD, J. M., "A Finite Capacity Round-Robin Queue," Center Report 7504.
- BLATTBERG, R. C. AND GONDES, N. J., "Estimators of the Parameters of the Student Distribution and Other Fat-Tailed Distributions," Center Report 7501.
- AND ———, "A Comparison of the Stable and Student Distributions as Statistical Models for Stock Prices," Center Reprint 360.
- BROCK, W. A., "Some Results on the Uniqueness of Steady States in Multisector Models of Optimum Growth When Future Utilities are Discounted," Center Reprint 354.
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- GALAI, D., "A Note on Cord's Method of Allocating Funds to Investment Projects," Center Report 7406.
- GOULD, J. P., "The Economics of Legal Conflicts," Center Reprint 353.
- , "Risk, Stochastic Preference, and the Value of Information," Center Reprint 362.
- AND NELSON, C. R., "The Stochastic Structure of the Velocity of Money," Center Reprint 370.
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- NELSON, C. R., "The First-Order, Moving Average Process, Identification, Estimation and Prediction," Center Reprint 367.
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- THEIL, H., "The Theory of Rational Random Behavior and its Application to Demand Analysis," Center Report 7454.
- , "A Theory of Rational Random Behavior," Center Reprint 365.

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*The following papers were received from the Western Management Science Institute, University of California, Los Angeles, California 90024:*

- ERLENKOTTER, D., "Capacity Expansion with Imports and Inventories," October 1974, Working Paper No. 223.  
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 LIPPMAN, S. A. AND MCCALL, J. J., "Job Search in a Dynamic Economy," January 1974, Working Paper No. 225.  
 MARSCHAK, J., "Value and Cost of Information Systems," 1974, Reprint No. 125.  
 MILLER, B. L., "Optimal Consumption with a Stochastic Income Stream," March 1974, Reprint No. 126.  
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 NAUSS, R. M., "Parametric Integer Programming," January 1975, Working Paper No. 226.

*The following papers were received from Technion, Israel Institute of Technology, Faculty of Industrial and Management Engineering, Haifa, Israel:*

- DAR-EL, E. M. AND TUR, Y., "An Algorithm for Resource Levelling of a Multi-Resource Project," November 1974, Operations Research, Statistics and Economics Mimeograph Series No. 157.  
 ESCHOLI, Z. AND ADIRI, I., "Single-Lane Bridge Serving Two-Lane Traffic," November 1974, Operations Research, Statistics and Economics Mimeograph Series No. 158.  
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*The following papers were received from the Center for Cybernetic Studies, The University of Texas, Austin, Texas 78712:*

- BEN-TAL, A. AND BEN-ISRAEL, A., "Primal Geometric Programs Treated by Linear Programming," July 1974, Research Report CCS 187.  
 ——— AND ———, "F-Convex Functions," January 1974, Research Report CCS 190.  
 ———, ——— AND ZLOBEC, S., "Characterization of Optimality in Convex Programming Without a Constraint Qualification," July 1974, Revised December 1974, Research Paper CCS 210.  
 CASS, D., CHARNES, A., COOPER, W. W. AND NIEHAUS, R. J., "A Multi-Page Goal Programming Model and Algorithm for Navy Officer Rotations," September 1974, Research Report CCS 192.  
 CHARNES, A., LITTLECHILD, S. AND ROUSSEAU, J., "On a Simple Resource-Value Transfer Economy," July 1974, Research Report CCS 205.  
 ———, RAIKE, W. AND STUTZ, J., "V-Positivity, Poverses and an Economic Global Unicity Theorem of Gale and Nikaido," June 1974, Research Report CCS 182.  
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- SHOCKER, A., SRINIVASAN, V. AND WEINSTEIN, A., "Measurement of a Composite Criterion of Managerial Success," Reprint 585.
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- AND SRINIVASAN, V., "Predicting Managerial Success of Master of Business Administration (MBA) Graduates," Reprint 660.

*The following papers were received from the Operations Research Center, College of Engineering, University of California, Berkeley, California 94720:*

- ADLER, I., LEVIN, R. AND OLIVER, R. M., "Longitudinal Budget Planning Models," August 1974, ORC 74-24.
- , "Rational Approach to Dirty Politics," October 1974, ORC 74-28.
- GLASSEY, C. R. AND KARP, R. M., "On the Optimality of Huffman Trees," July 1974, ORC 74-21.
- GRINOLD, R. C. AND WEYANT, J. P., "The Transition Fractions in a Class of Manpower Planning Models," June 1974, ORC 74-19.
- , "A New Approach to Multi-Stage Stochastic Linear Programs," October 1974, ORC 74-31.
- HINDAWI, D. S., "Discrete Time Optimal Control Problems with State Constraints," September 1974, ORC 74-27.
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