SUBJECT CLASSIFICATION SCHEME FOR THE OR/MS INDEX

Accounting Auditing Operating budgets Analysis of algorithms Computational complexity Data structures Suboptimal algorithms Communications Information Theory Computers Databases File systems Operation Time sharing **Computers/computer science** Artificial intelligence Databases Microcomputers Software Operation Cost analysis **Cost-benefit analysis** Costing Estimation **Decision analysis** Applications Approximations Criteria Inference Multiple criteria Risk Sensitivity Sequential Systems Theory **Dynamic programming** Applications Bayesian Deterministic Discrete time Markov Infinite state Finite state Semi Markov **Dynamic programming/** optimal control Applications Deterministic Finite state Infinite state Markov Finite state Infinite state Models Semi Markov Economics **Econometrics** Input-output analysis **Education systems** Operations Planning Engineering Applications Environment Ecology Pollution Weather

Facilities/equipment planning Capacity expansion Continuous Design Discrete Layout Location Continuous Discrete Stochastic Maintenance/replacement Stochastic Finance Asset pricing Assets pricing Capital assets Capital budgeting Capital budgets Capital rationing Corporate finance Depreciation Investment Investment criteria Management Portfolio Securities Taxation Working capital Financial institutions Banks Brokerage/trading Insurance Investment Markets Forecasting Applications ARIMA processes Delphi technique Regression Time series Games/group decisions Bargaining Bidding/auctions Cooperative Differential Gambling Non-atomic Noncooperative Stochastic Teams Voting committees Government Agencies Defense Elections Energy policies Foreign policy Politics Programs Regulations Services Fire Police Postal Waste disposal Water

Tax policy Health care Ambulance service Blood bank Diagnosis Epidemiology Hospitals Pharmaceutical Treatment Industries Agriculture food **Business services** Chemical Communications journalism Electronic Construction Electric Electronic Hotel/motel Leisure Lumber/wood Machinery Mining metals Paper Petroleum/natural gas Pharmaceutical Printing publications Real estate sports Retail apparel Transportation Transportation equipment Shipping Wholesale Information systems Analysis and design Decision support systems Expert systems Management Inventory/production Applications Approximations Approximations/heuristics Deterministic Deterministic models EOQ Linear decision rules Maintenance/replacement Pricing Measures of effectiveness Multi-item/echelon/stage Operating characteristics Parametric analysis Aging items Decaving items Planning horizons Policies Advertising Capacity Disposal Disposal/issuing Lead time

Ordering Pricing Replacement Review/lead times Production smoothing Lot-sizing Smoothing Sensitivity analysis Simulation Stochastic Stochastic models Uncertainty Deterministic Stochastic Judicial/legal Crime Crime prevention Law Penal system Labor Libraries Manufacturing Automated systems productivity Strategy Marketing Advertising and media Advertising/promotion Buyer behavior Channels of distribution Choice models Competition Competitive strategy Distribution Estimation/statistical techniques Industrial marketing International marketing Marketing mix Measurement Mix New products Packaging Pricing Product policy Promotion Retailing and wholesaling Sales force Scaling methods Segmentation **Mathematics** Combinatorics Convexity Fixed points Functions Matrices Piecewise linear Sets Polyhedra Systems solution Equations Inequalities Military Antisubmarine warfare Cost effectiveness Defense systems Force effectiveness Lanchester theory Logistics

Missile systems Personnel Requirements Evaluation Search/surveillance Stochastic duels Tactics/strategy Targeting Test/Evaluation Tracking War games Warfare models Natural resources Conservation Energy Land development Water resources Networks/graphs Applications Distance algorithms Flow algorithms Generalized networks Heuristics Matchings Multicommodity Stochastic Theory Traveling salesman Tree algorithms Organizational studies Behavior Decision making Design Effectiveness/performance Goals Information Leadership Manpower planning Motivation/incentives Personnel Productivity State-owned Strategy Structures Training Philosophy Philosophy of modeling Planning Community Corporate Government Urban Population Family planning Probability Applications Clearing processes Crossing problems Diffusion Distribution comparisons Distributions Entropy Markov processes Random walk Regenerative processes Renewal processes Stochastic model applications Production/scheduling Applications Approximations/heuristic Cutting stock Trim

Deterministic Flexible manufacturing/line balancing Hierarchial planning Learning Line balancing Lot sizing (closed shop) Materials handling MRP Multiple machine Open shop Flow shop Job shop deterministic stochastic Single stage Planning Product design Sequencing Deterministic multiple machine single machine Stochastic Single machine Stochastic Work studies-learning Professional Addresses Comments on Humor/satire Journal policies Obituaries **OR/MS** education **OR/MS** implementation OR/MS philosophy OR/MS policy/standards Programming Complementarity Transformations Fractional Geometric Infinite dimensional Integer Algorithms Benders-Decomposition Branch-and-bound Cutting plane Cutting plane/facet Enumerative Group Heuristic Relaxation Relaxation/subgradient Applications **Benders-decomposition** Cutting plane-facet generation Group Heuristic Interval Nonlinear Relaxation-subgradient Theory Interval Large scale systems Linear Algorithms Ellipsoidal Generalized network Simplex Applications

Large scale systems Multiple criteria Nondifferentiable Parametric Theory Multiple criteria Nondifferentiable Nonlinear Algorithms Applications Convex **Ouadratic** Theory Duality Optimality conditions Parametric Unconstrained Ouadratic Stochastic Stochastic-chance constrained **Project management** CPM GERT PERT Resource constraints VERT Oueues Algorithms Applications Approximations Balking and reneging Batch/bulk Birth/Death Busy period analysis Cvclic Diffusion models Feedback Limit theorems Markovian Multichannel Networks Nonstationary Optimization Output process Priority Simulation Statistical inference Switching Tandem Transient results **Recreation and sports** Reliability Availability Coherent structures Failure models Inspection Life distributions Maintenance/repairs Multistate systems Quality control Redundancy/spares Replacement/renewal Shock models System safety

Research and developement Innovation Project selection Search and surveillance Simulation Applications Design of experiments Efficiency Languages Random variable generation Statistical analysis System dynamics Systems dynamics **Space Program** Statistics Analysis of variance Bavesian Censoring Cluster analysis Correlation Data Data analysis Design of experiments Estimation Factor analysis Nonparametric Pattern analysis Regression Sampling Time series Technology Transportation Air Assignment Automobile Costs Freight/materials handling Fuel Location Mass transit Materials handling Mode-route choice Models Assignment Location Network Traffic Network Personnel Rail Road Route selection Safety/injuries Scheduling Personnel Vehicles Taxis/limousines Traffic Travel Mode/route choice Vehicle routing Vehicles Water Utility/preference Applications Choice functions Estimation Multiattribute Scaling Theory Value theory