Lecture Notes in Economics and Mathematical Systems

Managing Editors: M. Beckmann and H. P. Künzi

155

Multiple Criteria Problem Solving

Proceedings of a Conference Buffalo, N.Y. (U.S.A.), August 22–26, 1977



Edited by S. Zionts



Fachbereich Mathematik
Technische Hochschule Darmstadt
Bibliothek

Inv.-Nr. B 16 890

Springer-Verlag Berlin Heidelberg New York 1978

TABLE OF CONTENTS*

PAGE

BELL, DAVID E.	
"Interpolation Independence"	· 1
BLIN, JEAN-MARIE and J.A. DODSON, JR.	
"A Multiple Criteria Decision Model for Repeated Choice Situations"	8
BODILY, SAMUEL	
"Evaluating Joint Life-Saving Activities under Uncertainty".	23
CHANKONG, VIRA and YACOV Y. HAIMES	
"The Interactive Surrogate Worth Trade-off Method for Multiobjective Decision-Making"	42
DYER, JAMES S. and RAKESH K. SARIN	
"Cardinal Preference AggregationRules for the Case of Certainty"	68
EINHORN, HILLEL and WILLIAM MCCOACH	
"A Simple Multi-Attribute Utility Procedure for Evaluation"	87
FANDEL, GÜNTER	
"Public Investment Decision Making with Multiple Criteria; An Example of University Planning"	116
FARQUHAR, PETER H.	
"Interdependent Criteria in Utility Analysis"	131
FISHBURN, PETER C.	
"A Survey of Multiattribute/Multicriterion Evaluation Theories"	181
GAL, TOMAS	
"An Overview of Recent Results in Multiple Criteria Problem Solving as Developed in Aachen, Germany"	225
HANSEN, PIERRE and MICHEL DELATTRE	
"Bicriterion Cluster Analysis as an Exploration Tool"	249
ISERMANN, HEINZ	
"Duality in Multiple Objective Linear Programming"	274
JOHNSEN, ERIK	
"Multiobjective Management of the small firm"	286
KEEFER, DONALD L.	
"Applying Multiobjective Decision Analysis to Resource Allocation Planning Problems"	299
KEENEY, RALPH L. and GARY L. LILIEN	
"A Utility Model for Product Positioning"	321

^{*}The papers are alphabetically ordered according to the names of the author or first co-author. A rather comprehensive bibliography of Multiple Criteria Problem Solving may be found at the end of the article by Peter Fishburn.

	PAGE
KIRKWOOD, CRAIG	
"Social Decision Analysis Using Multiattribute	
Utility Theory"	. 335
KORNBLUTH, JONATHAN	
"Ranking with Multiple Objectives"	. 345
LEE, SANG M.	
"Interactive Integer Goal Programming:	
Methods and Application"	. 362
MORSE, JOEL N.	
"A Theory of Naive Weights"	. 384
MOSCAROLA, J.	
"Multicriteria Decision Aid	
Two Applications in Education Management"	. 402
MOSKOWITZ, HERBERT, STEVE M. BAJGIER, AARON BARTELL, and ANDREW	в.
WHINSTON	
"Multiattribute Risk/Benefit Analysis of Citizen Attitudes	;
Toward Societal Issues Involving Technology"	. 424
PASSY, URY and Y. LEVANON	
"Condensing Multiple Criteria"	. 449
STEUER, RALPH E.	
"Vector Maximum Gradient Cone Contraction Techniques"	. 462
TELL, BERTIL	
"An Approach to Solving Multi-Person Multiple-	
Criteria Decision-Making Problems"	. 482
WEHRUNG, D.A., J.F. BASSLER, K.R. MACCRIMMON, and W.T. STANBURY	,
"Multiple Criteria Dominance Models:	
An Empirical Study of Investment Preferences"	. 494
YU, PO-LUNG	
"Toward Second Order Game Problems:	
Decision Dynamics in Gaming Phenomena"	. 509
ZELENY, MILAN	
"Multidimensional Measure of Risk: Prospect Rating	
Vector"	. 529
ZIONTS, STANLEY and DILIP DESHPANDE	
"A Time Sharing Computer Programming Application of	
A Multiple Criteria Decision Method to Energy Planning	
A Progress Report"	. 549
CONFERENCE PROGRAM	. 561
I TOW OF DARWICTDANING	566