

Contents

Welcome from the Optical Society of America <i>W. L. Hyde</i>	1
Lens Design Viewed as an Optimization Process <i>D. P. Feder</i>	5
A Comparison among Eight Known Optimizing Procedures <i>A. Leon</i>	23
The Generalized Orthonormal Optimization Program and Its Applications <i>R. J. Pegis</i> <i>D. S. Grey</i> <i>T. P. Vogl and A. K. Rigler</i>	47
A New Computing Technique for the Solution of Concave Non-linear Programming Problems <i>T. B. Knapp</i>	61
Boundary Conditions in Optimization Problems <i>D. S. Grey</i>	69
AID - A General Purpose Computer Program for Optimization <i>J. K. Casey</i> <i>R. C. Rustay</i>	81
A Universal Adaptive Code for Optimization (GROPE) <i>M. M. Flood and A. Leon</i>	101
The Probe and Edge Theorems for Non-linear Optimization <i>R. A. Mugele</i>	131
An Algorithm for Geometric Programming <i>C. J. Frank</i>	145
Optimization in Electromagnetic System Design <i>R. Schinzinger</i>	163
The SUMT Method for Convex Programming: Some Discussion and Experience <i>A. Charnes</i>	215

The Use of "Optimal Search" for Engineering Design <i>J. Weisman and C. F. Wood</i>	219
Optimizing Zoom Systems with the Lasl Lens Design Program <i>C. A. Lehman</i>	229
Computer Studies of A Certain Class of Linear Integer Problems <i>R. W. House, L. D. Nelson, and T. Rado</i>	241
A Method for Scheduling Students to Classes <i>G. L. Thompson</i>	281
Dynamic Inference Decision Processes <i>R. A. Howard</i>	297
A Generalized Maximum Principle <i>D. G. Luenberger</i>	323
Objective Function Indistinguishability in Unimodal Optimization <i>D. J. Wilde</i>	341
On Improving the Performance of a Class of Optimal Control Systems by Employing Simple Coarse Controls <i>W. J. Culver</i>	351
A Practical Multifactor Optimization Criterion <i>D. A. Gall</i>	369
A Gradient Method for Optimizing Stochastic Systems <i>R. J. Fitzgerald</i>	387
Optimum Digital Control of Shipboard Plants with Stochastic Inputs <i>H. R. Martens and H. P. Semmelhack</i>	419
Optimal Tracking of Nonlinear Dynamic Systems <i>J. C. Strauss</i>	449
Solution of Variational Problems with Bounded Control Variables by Means of the Generalized Newton-Raphson Method <i>P. Kenneth and G. E. Taylor</i>	471
Solution of Multiple-arc Problems by the Steepest-descent Method <i>D. S. Hague</i>	489
Optimal and Sub-optimal Designs of Proportional Navigation Systems <i>F. H. Kishi and T. S. Bettwy</i>	519

Three Axes Optimal Control of A Space Vehicle <i>E. W. Owen</i>	541
Optimum Link Scheduling in Satellite Communications System <i>A. Koocharian and H. Young</i>	559
Information Theoretic Optimization and Evaluation of Nonlinear Antenna Systems <i>G. O. Young and A. A. Ksienski</i>	573
A Classified Bibliography on Optimization <i>A. Leon</i>	599