Table of Contents

Preface

Some Aspects of Mathematical Screening Models U. Schubert and G. Seiffert	1
Mathematical Approaches to the Problem of Early Detection of Chronic Diseases with Particular Reference to Human Neoplasias P. Tautu	10
Computer Simulation and the Practical Planning of Cervical Cancer Screening Programmes D. M. Parkin	33
Mathematical Modelling of Interacting Factors in the Analysis and Optimization of Cancer Screening G. J. van Oortmarssen and J. D. F. Habbema	63
Theoretical and Practical Criteria for the Evaluation of Screening Programmes BP. Robra and F. W. Schwartz	79
Evaluation of Cancer Screening F. Weber	90
The Utility of Cancer Screening A Decision Help by Critical Values J. G. Brecht	110
Testing and Estimating the Sensitivity and the Specificity of Diagnostic Procedures E. Walter	116
On the Lead Time of a Periodic Screening Programme B. J. Maier	128

Estimation of Optimal Examinitation Intervals in Screening for Colrectal Cancer I. Guggenmoos-Holzmann	131
Diagnostic Validity of Screening by Sonography and Low Dose Mammo-graphy of the Breast D. Land	138
The Effectiveness of Examinations in the Early Detection of Cervic Cancer D. J. Moya	al 145
Confirmation of Disease Monitoring Results and Disease Clustering R. Chen, N. Mantel and R. R. Connelly	155
Screening for Hypertension U. Keil, H. W. Hense and J. Stieber	168
Discussion about Open Problems with Early Detection of Cancer	196