CONTENTS

LIST OF CONTRIBUTORS	v
PREFACE	vii
SOME ASPECTS OF OPTIMAL RECOVERY T.J. Rivlin	1
APPLICATION OF MULTIVARIATE APPROXIMATION TO THE SOLUTION OF BOUNDARY VALUE PROBLEMS L. Collatz	13
MULTIVARIATE APPROXIMANTS WITH BRANCH CUTS J.S.R. Chisholm	31
SERENDIPITY-TYPE BIVARIATE INTERPOLATION FJ. Delvos, H. Posdorf and W. Schempp	47
THE ALGEBRAIC STRUCTURE OF LINEAR SYSTEMS OCCURRING IN NUMERICAL METHODS FOR SPLINE INTERPOLATION G. Meinardus	57
INTEGRAL REPRESENTATION OF REMAINDER FUNCTIONALS IN ONE AND SEVERAL VARIABLES Harold S. Shapiro	69
THE TRACE TO CLOSED SETS OF THE ZYGMUND CLASS OF OUASI-SMOOTH FUNCTIONS IN R ⁿ	
Hans Wallin	83

xii CONTENTS

APPROXIMANTS FOR SOME CLASSES OF MULTIVARIABLE FUNCTIONS PROVIDED BY VARIATIONAL PRINCIPLES Michael F. Barnsley	95
SYMMETRY IN BIRKHOFF MATRICES G.G. Lorentz	105
NEAR-BEST L_{∞} AND L_1 APPROXIMATIONS TO ANALYTIC FUNCTIONS ON TWO-DIMENSIONAL REGIONS J.C. Mason	115
INTERPOLATIVE SUBSPACES, INTERPOLATIVE WIDTHS AND INTERPOLATIVE MAPS Geetha S. Rao	137
A GENERAL REMES ALGORITHM IN REAL OR COMPLEX NORMED LINEAR SPACES HP. Blatt	145
POLYNOMIAL APPROXIMATION OF SHAPES BASED ON CONDENSED REPRESENTATIONS OF BERNSTEIN POLYNOMIALS IN ONE AND SEVERAL VARIABLES E.L. Ortiz and M.R.J. da Silva	155
A PRACTICAL METHOD FOR ESTIMATING APPROXIMATION ERRORS IN SOBOLEV SPACES Jean Meinguet	169
APPROXIMATION OF BIVARIATE FUNCTIONS BY MEANS OF SOME BERNSTEIN-TYPE OPERATORS D.D. Stancu	189
REMARKS ON THE CONSTRUCTION OF SCHAUDER BASES AND ON THE PÓLYA ALGORITHM L.A. Karlovitz	209
ON A CLASS OF METHODS FOR NONLINEAR APPROXIMATION PROBLEMS G.A. Watson	
SOME PRACTICAL APPLICATIONS IN DISCRETE MULTIVARIATE APPROXIMATION	219
J.G. Hayes MULTIVARIATE PIECEWISE POLYNOMIAL APPROXIMATION John R. Rice	229 261
A BLENDING FUNCTION INTERPOLANT FOR TRIANGLES John A. Gregory	279
THE REPRESENTATION AND HANDLING OF SMOOTH THREE DIMENSIONAL SURFACES K.R. Butterfield	289
DRCCCTTTCTA	∠07

A TECHNIQUE FOR APPROXIMATE CONFORMAL MAPPING S.W. Ellacott	301
A MIXED-NORM BIVARIATE APPROXIMATION PROBLEM WITH APPLICATIONS TO LEWANOWICZ OPERATORS	
E.W. Cheney, J.H. McCabe and G.M. Phillips MULTIVARIATE APPROXIMATION PROBLEMS IN COMPUTATIONAL	315
GEOMETRY A.R. Forrest	325
ONE-SIDED APPROXIMATION AND INTEGRATION RULES	
H. Strauss	341
PROBLEMS PROPOSED DURING THE SYMPOSIUM	349

CONTENTS

xiii