

Contents

Applications of a Generalized Leibniz Rule U. ABEL	1
An Electrostatics Problem on the Sphere Arising from a Nearby Point Charge J. S. BRAUCHART, P. D. DRAGNEV AND E. B. SAFF	11
Natural Weights for Uniform Approximation by the Szász-Mirakjan Operator B. R. DRAGANOV AND K. G. IVANOV	57
Cubature Rules for Harmonic Functions on the Disk Using Line Integrals over Two Sets of Equispaced Chords I. GEORGIEVA AND C. HOFREITHER	83
Interpolating Basis in the Space $C^\infty[-1, 1]^d$ A. P. GONCHAROV	97
Beta Operators with Jacobi Weights H. GONSKA, I. RAŞA AND E.-D. STĂNILĂ	101
Fast Evaluation and Irregular Sampling of Band-limited Functions on the Sphere K. G. IVANOV AND P. P. PETRUSHEV	115
On Matching Point Configurations D. JIMÉNEZ AND G. PETROVA	141
Semidefinite Extreme Points in a Polynomial Space L. MILEV	155
On the Path-connectedness of the Set of Extreme Points in a Polynomial Space N. NAIDENOV	165
On Markov–Duffin–Schaeffer Inequalities with a Majorant. II G. NIKOLOV AND A. SHADRIN	175
Properties of Mappings Generated with Inequalities for Isotonic Linear Functionals L. NIKOLOVA AND S. VAROŠANEC	199
On New Families of Radial Rasis Functions A. I. ROZHENKO	217

Approximation by Band-limited Scaling and Wavelet Expansions M. A. SKOPINA	235
Extremal Scattered Data Interpolation in \mathbb{R}^3 using Tensor Product Bézier Surfaces K. VLACHKOVA	253
On Approximation by Algebraic Version of the Trigonometric Jackson Integrals $G_{S,N}$ in Weighted Integral Metric T. ZAPRYANOVA	265