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By I. C. Gohberg and M. G. Krein

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396 Pages; List Price \$21.40; Member Price \$16.05

The theory of nonselfadjoint operators in Hilbert space is a recent branch of functional analysis. In recent times, it has attracted the ever increasing attention of mathematicians and physicists, and sometimes of engineers also. The aim of this book is to present a number of achievements in this field, most of them related to the theory of completely continuous operators.

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The presentation in this book is carried out in the spirit of the abstract theory of operators. It is illustrated by various applications to the theory of integral equations. The reader who has some experience in the theory of boundary value problems for differential equations, or an acquaintance with the theory of linear vibrating systems with a finite or infinite number of degrees of freedom, will easily discover how many of the results discussed here find immediate application in each of these fields.

MAHLER'S PROBLEM IN METRIC NUMBER THEORY

By V. G. Sprindžuk

Translations of Mathematical Monographs, Volume 25

200 Pages; List Price \$12.70; Member Price \$9.53

This book deals with the solution of a group of questions related both to the general theory of transcendental numbers and to the metrical theory of diophantine (and also algebraic) approximations. The fundamental problem in this field has been known in the literature since 1932 as Mahler's conjecture. The main result of this book is a proof of Mahler's conjecture and some analogous theorems.

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GEOMETRIC THEORY OF FUNCTIONS OF A COMPLEX VARIABLE

By G. M. Goluzin

Translations of Mathematical Monographs, Volume 26

684 Pages; List Price \$35.50; Member Price \$26.63

The first edition of Goluzin's monograph was published in 1952, shortly after the author's death. In the last decade, an extensive literature has appeared on themes closely related to the content of this monograph, and many of these results were obtained in the works of Goluzin's pupils. A survey of this literature is given in a special supplement by N. A. Lebedev, G. U. Kuzmina, and Ju. E. Alenicyn.

The text of the book has undergone only slight modifications. Three bibliographic lists have been added. One of these corresponds to references made in the main text, another to the supplement. In addition, a complete list is given of Goluzin's works.

GEODESIC FLOWS ON CLOSED RIEMANN MANIFOLDS OF NEGATIVE CURVATURE

By D. V. Anosov

Proceedings of the Steklov Institute of Mathematics, Number 90

240 Pages; List Price \$15.20; Member Price \$11.40

The methods and results of this monograph are chiefly based on the fact that a geodesic flow on a closed Riemannian manifold of negative curvature satisfies a so-called (U)-condition, roughly expressible as follows: near an arbitrary fixed trajectory of the dynamical system, the behavior of the neighboring trajectories is similar to that of trajectories close to a saddle. Numerous examples are given of (U)-flows (continuous time) and (U)-cascades (discrete time). Most important among the many results is the theorem that every (U)-system is structurally stable in the sense that for an arbitrary, sufficiently small perturbation, there exists a homeomorphism of the phase space which is close to the identity and takes the trajectories of the unperturbed system into those of the perturbed system.

EXTREMAL PROBLEMS OF THE GEOMETRIC THEORY OF FUNCTIONS

Edited by Ju. E. Alenicyn

Proceedings of the Steklov Institute of Mathematics, Number 94

176 Pages; List Price \$11.80; Member Price \$8.85

This volume is a collection of papers on various problems in the geometric theory of functions of a complex variable. For the most part, the papers are the work of students of Gennadii Mihailovič Goluzin and are related to problems with which he has been concerned. The authors are Ju. E. Alenicyn, S. A. Gel'fer, E. G. Goluzina, G. V. Kuz'mina, N. A. Lebedev, I. A. Aleksandrov, I. M. Milin, M. I. Revjakov, G. A. Skotnikova, and N. M. Gol'dina. The work of the last three authors is based on theses written at Leningrad State University.

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TABLE ERRATA 239

ERDÉLYI, MAGNUS, OBERHETTINGER & TRICOMI 450, ERDÉLYI, MAGNUS,
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CORRIGENDA 243

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Mathematics of Computation

TABLE OF CONTENTS

JANUARY 1970

Variations on Variable-Metric Methods	J. GREENSTADT	1
Appendix	Y. BARD	19
A Family of Variable-Metric Methods Derived by Variational Means	DONALD GOLDFARB	23
Modification of a Quasi-Newton Method for Nonlinear Equations with a Sparse Jacobian	L. K. SCHUBERT	27
Maximum Norm Stability of Difference Approximations to the Mixed Initial Boundary-Value Problem for the Heat Equation	J. M. VARAH	31
Difference Methods for Nonlinear First-Order Hyperbolic Systems of Equations	L. F. SHAMPINE & R. J. THOMPSON	45
Three-Dimensional Second-Order Accurate Difference Schemes for Discontinuous Hydrodynamic Flows .	EPHRAIM L. RUBIN & STANLEY PREISER	57
Elliptic Spline Functions and the Rayleigh-Ritz-Galerkin Method	MARTIN H. SCHULTZ	65
Linear Multistep Methods with Mildly Varying Coefficients	J. D. LAMBERT	81
Symmetric Quadrature Formulae for Simplexes	P. SILVESTER	95
The Calculation of Fourier Coefficients by the Möbius Inversion of the Poisson Summation Formula. Part I. Functions whose Early Derivatives are Continuous	J. N. LYNES	101
Computing Invariant Subspaces of a General Matrix when the Eigensystem is Poorly Conditioned	J. M. VARAH	137
Explicit Expressions for the Determinants of Certain Matrices	J. L. LAVOIE & R. MICHAUD	151
Inequalities on the Elements of the Inverse of a Certain Tridiagonal Matrix	D. KERSHAW	155
Generalized Rational Chebyshev Approximation	ICHIZO NINOMIYA	159
Chebyshev Approximations for Dawson's Integral	W. J. CODY, KATHLEEN A. PACIOREK & HENRY C. THACHER, JR.	171
Table for Third-Degree Spline Interpolation With Equally Spaced Arguments	T. N. E. GREVILLE	179
Efficient Algorithms for Polynomial Interpolation and Numerical Differentiation	FRED T. KROGH	185
Further Approximations for Elliptic Integrals	YUDELL L. LUKE	191
Symmetric Elliptic Integrals of the Third Kind	D. G. ZILL & B. C. CARLSON	199
A Table of the First Factor for Prime Cyclotomic Fields.	MORRIS NEWMAN	215
A Conjecture of Paul Erdős Concerning Gaussian Primes	J. H. JORDAN & J. R. RABUNG	221
REVIEWS AND DESCRIPTIONS OF TABLES AND BOOKS		225