

P. Lambin and J. P. Vigneron , Tables for the Gaussian Computation of $\int_0^\infty x^\alpha e^{-x} f(x) dx$ for Values of α Varying Continuously Between -1 and $+1$...	805
John McKay and Kiang-Chuen Young , The Nonabelian Simple Groups G , $ G < 10^6$ – Minimal Generating Pairs.....	812
J. S. Frame , The Hankel Power Sum Matrix Inverse and the Bernoulli Continued Fraction.....	815
Ronald J. Evans and Jay Roderick Hill , The Cyclotomic Numbers of Order Sixteen.....	827
F. Diaz y Diaz, Daniel Shanks and H. C. Williams , Quadratic Fields With 3-Rank Equal to 4.....	836
H. G. Kepetzky and W. Schwarz , Two Conjectures of B. R. Santos Concerning Totitives.....	841
Table Errata	845
Abramowitz & Stegun, Editors 563 , Batschelet 561 , Gradshteyn & Ryzhik 564 , Mardia 562	
Corrigendum	847
Godwin, Lee & Roberts, and Williams	
Microfiche Supplement	
John McKay and Kiang-Chuen Young , The Nonabelian Simple Groups G , $ G < 10^6$ – Minimal Generating Pairs	

MATHEMATICS OF COMPUTATION

TABLE OF CONTENTS

APRIL 1979

I. Babuška and W. C. Rheinboldt, Analysis of Optimal Finite-Element Meshes in R^1 ..	435
A. H. Schatz and L. B. Wahlbin, Maximum Norm Estimates in the Finite Element Method on Plane Polygonal Domains. Part 2, Refinements.....	465
Mitchell Luskin, Convergence of a Finite Element Method for the Approximation of Normal Modes of the Oceans.....	493
Trond Steihaug and Arne Wolfbrandt, An Attempt to Avoid Exact Jacobian and Nonlinear Equations in the Numerical Solution of Stiff Differential Equations.....	521
Peter Alfeld, An Improved Version of the Reduction to Scalar CDS Method for the Numerical Solution of Separably Stiff Initial Value Problems.....	535
G. J. Cooper and A. Sayfy, Semiexplicit A -stable Runge-Kutta Methods.....	541
J. M. Varah, On the Efficient Implementation of Implicit Runge-Kutta Methods.....	557
Vassilios A. Dougalis, Multistep-Galerkin Methods for Hyperbolic Equations.....	563
Michael Ghil and Ramesh Balgovind, A Fast Cauchy-Riemann Solver.....	585
R. Leonard Brown, Stability of Sequences Generated by Nonlinear Differential Systems.....	637
R. C. Y. Chin, G. W. Hedstrom and K. E. Karlsson, A Simplified Galerkin Method for Hyperbolic Equations.....	647
U. Ascher, J. Christiansen and R. D. Russell, A Collocation Solver for Mixed Order Systems of Boundary Value Problems.....	659
Axel Ruhe, Implementation Aspects of Band Lanczos Algorithms for Computation of Eigenvalues of Large Sparse Symmetric Matrices.....	680
C. H. Yang, Hadamard Matrices, Finite Sequences, and Polynomials Defined on the Unit Circle.....	688
Sven-Åke Gustafson, On Stable Calculation of Linear Functionals.....	694
Charles J. Gladwin, Quadrature Rule Methods for Volterra Integral Equations of the First Kind.....	705
Martin Stynes, On Faster Convergence of the Bisection Method for Certain Triangles.....	717
Krzysztof Sikorski, A Three-Dimensional Analogue to the Method of Bisections for Solving Nonlinear Equations.....	722
James L. Blue, A Legendre Polynomial Integral.....	739
Walter Gautschi, On the Preceding Paper "A Legendre Polynomial Integral" by James L. Blue.....	742
Henry C. Thacher, Jr., New Backward Recurrences for Bessel Functions.....	744
A. G. Petschek, R. E. Williamson, W. J. Krauser and P. C. White, Monte Carlo Functional Expansion Calculation of Free Molecular Flows.....	765
Robert Morris, The Dilogarithm Function of a Real Argument	778
John Detrich and Robert W. Conn, Finite Sum Evaluation of the Gauss Hypergeometric Function in an Important Special Case.....	788
M. L. Glasser, A Note on the Integral $\int_0^\infty t^{2\alpha-1}(1+t^2)^{1-\alpha-\beta}J_\nu(x\sqrt{1+t^2})dt$	792
Ch. A. Charalambides, Bernoulli Related Polynomials and Numbers.....	794