

VOLUME XVIII

AUTHOR INDEX

Papers and Technical Notes

Short papers and notes are marked (N) in this index

<i>Author</i>	<i>Title</i>	<i>Page</i>
AHLIN, A. C.	A bivariate generalization of Hermite's interpolation formula	264
AZIZ, A. K., & HUBBARD, B. E.	Bounds on the truncation error by finite differences for the Goursat problem	19
BAUER, HELMUT F.	Tables of zeros of cross product Bessel functions	
	$J_p'(\xi)Y_p'(k\xi) - J_p'(k\xi)Y_p'(\xi) = 0$ (N)	128
BELLMAN, RICHARD	Differential approximation applied to the solution of con-	
KALABA, ROBERT, & KOTKIN, BELLA	volution equations (N)	487
BEST, GILBERT C.	Helpful formulas for integrating polynomials in three dimen-	
	sions (N)	310
BOAS, R. P., JR., & KLEMA, VIRGINIA C.	A constant in the theory of trigonometric series (N)	674
BRAMBLE, JAMES H., & HUBBARD, BERT E.	New monotone type approximations for elliptic problems	349
BRILLHART, JOHN	On the factors of certain Mersenne numbers, II	87
BRILLHART, JOHN, LEHMER, D. H., & LEHMER, EMMA	Bounds for pairs of consecutive seventh and higher power residues	397
BROYDEN, C. G.	On convergence criteria for the method of successive over-	
	relaxation (N)	136
BURGOYNE, F. D.	Generalized trigonometric functions (N)	314
BUTCHER, J. C.	Implicit Runge-Kutta processes	50
BUTCHER, J. C.	Integration processes based on Radau quadrature formulas	233
CADWELL, J. H.	An approximation to the integral of the circular Gaussian dis-	
	tribution over an offset ellipse	106
CHEEMA, M. S.	Vector partitions and combinatorial identities	414
DAVIS, PHILIP J.	Triangle formulas in the complex plane	569
DAY, J. T.	A one-step method for the numerical solution of second order linear ordinary differential equations (N)	664
DE BRUIJN, N. G.	Some direct decompositions of the set of integers	537
EBERLEIN, P. J.	A two parameter text matrix (N)	296
ELLIOTT, DAVID	The evaluation and estimation of the coefficients in the Cheby-	
	shev series expansion of a function	274
ERDÖS, P.	On a problem in elementary number theory and a combina-	
	torial problem (N)	644
FAIR, WYMAN	Padé approximation to the solution of the Riccati equation	627
FETTIS, HENRY E.	On the numerical solution of equations of the Abel type (N)	491
FISHER, DONALD D.	Minimum ellipsoids (N)	669
FORSYTHE, GEORGE E.	Tests of Parlett's ALGOL eigenvalue procedure <i>Fig 3</i> (N)	486
FRANKLIN, JOEL N.	Equidistribution of matrix-power residues modulo one	560
GARDINER, V. L., LAZARUS, R. B., & STEIN, P. R.	Solutions of the Diophantine equation $x^3 + y^3 = z^3 - d$	408
GARY, JOHN	On certain finite difference schemes for hyperbolic systems	1
GEBHARDT, FRIEDRICH	Generating normally distributed random numbers by in-	
	verting the normal distribution function (N)	302

<i>Author</i>	<i>Title</i>	<i>Page</i>
GERBER, HENRY	First one hundred zeros of $J_0(x)$ accurate to 19 significant figures (N).....	319
GILLIES, DONALD B.	Three new Mersenne primes and a statistical theory.....	93
HABER, SEYMOUR	A note on some quadrature formulas for the interval $(-\infty, \infty)$ (N).....	313
HULL, T. E., & JOHNSTON, R. L.	Optimum Runge-Kutta methods (N).....	306
HUMMER, DAVID G.	Expansion of Dawson's function in a series of Chebyshev polynomials (N).....	317
HUNTER, D. B.	The calculation of certain Bessel functions (N).....	123
JAGERMAN, DAVID L.	The autocorrelation and joint distribution functions of the sequences $\left\{\frac{a}{m}j^2\right\}, \left\{\frac{a}{m}(j + \tau)^2\right\}$	211
KARST, E., & KARST, U.	The first power of 2 with 8 consecutive zeros (N).....	508
KELLOGG, R. B.	Difference equations on a mesh arising from a general triangulation.....	203
KLOPFENSTEIN, R. W.	Conditional least squares polynomial approximation (N).....	659
KRAVITZ, SIDNEY, & BERG, MURRAY	Lucas' test for Mersenne numbers, $6000 < p < 7000$ (N).....	148
LA BUDDE, C. DONALD	A new algorithm for diagonalizing a real symmetric matrix (N)	118
LARKIN, BERT K.	Some stable explicit difference approximations to the diffusion equation.....	196
LAVOIE, JEAN L.	On inverses of finite segments of the generalized Hilbert matrix (N).....	141
LAVOIE, JEAN L.	On the evaluation of certain determinants (N).....	653
LAYMAN, J. W.	A finite-difference exponential approximation method (N).....	113
LIETZKE, M. H., STOUGHTON, R. W., & LIETZKE, MARJORIE P.	A comparison of several methods for inverting large symmetric positive definite matrices.....	449
LING, CHIH-BING, & TSAI, CHEN-PENG	Evaluation at half periods of Weierstrass' elliptic function with rhombic primitive period-parallelogram.....	433
LYNN, M. STUART	On the round-off error in the method of successive over-relaxation.....	36
MCMAMEE, JOHN	Error-bounds for the evaluation of integrals by the Euler-Maclaurin formula and by Gauss-type formulae.....	368
MOND, B.	Multivariate polynomial approximation for equidistant data (N).....	298
MOURSUND, D. G.	Chebyshev approximations of a function and its derivatives..	382
MUSTARD, D.	Numerical integration over the n -dimensional spherical shell.	578
OLVER, F. W. J.	Error analysis of Miller's recurrence algorithm.....	65
OTIS, A. B., JR., & BARNETT, M. P.	Surface harmonic expansions of products of Cartesian coordinates.....	635
PARKER, E. T., & KILLGROVE, R. B.	A note on projective planes of order nine (N).....	506
PARLETT, BERESFORD	Laguerre's method applied to the matrix eigenvalue problem.	464
PARLETT, BERESFORD	A note on La Budde's algorithm (N).....	505
PODOLSKY, BORIS, & DENMAN, HARRY H.	Conditions on minimization criteria for smoothing.....	441
RICE, JOHN R.	On the computation of L_1 approximations by exponentials, rationals, and other functions.....	390
RICE, JOHN R.	On the L_∞ Walsh arrays for $\Gamma(x)$ and $\text{Erfc}(x)$	617
RIESEL, HANS	Note on the congruence $a^{p-1} \equiv 1 \pmod{p^2}$ (N).....	149

<i>Author</i>	<i>Title</i>	<i>Page</i>
RIGLER, A. K.	An application of cyclic reduction to Ritz type difference equations (N).....	292
ROBINSON, RAPHAEL M.	Algebraic equations with span less than 4.....	547
ROMAN, IRWIN	Controlled quadrature.....	254
ROSE, MILTON E.	Finite difference schemes for differential equations.....	179
SAG, T. W., & SZEKERES, G.	Numerical evaluation of high-dimensional integrals.....	245
SELFRIDGE, J. L., & HURWITZ, ALEXANDER	Fermat numbers and Mersenne numbers (N).....	146
SENECHALLE, LESTER J.	Iteration of triangular matrices (N).....	651
SHANKS, DANIEL	The second-order term in the asymptotic expansion of $B(x)$..	75
SHANKS, DANIEL	Polylogarithms, Dirichlet series, and certain constants (N)..	322
SHANKS, DANIEL	On maximal gaps between successive primes (N).....	646
SHAO, T. S., CHEN, T. C., & FRANK, R. M.	Tables of zeros and Gaussian weights of certain associated Laguerre polynomials and the related generalized Hermite polynomials.....	598
STECK, RICHARD	A dynamic programming strategy for the two machine problem.....	285
STEMMLER, ROSEMARIE M.	The ideal Waring theorem for exponents 401-200,000 (N)....	144
STROUD, A. H.	Approximate integration formulas of degree 3 for simplexes..	590
VAN TUYL, A. H.	The evaluation of some definite integrals involving Bessel functions which occur in hydrodynamics and elasticity....	421
WADSWORTH, D. VAN Z.	Improved asymptotic expansion for the error function with imaginary argument (N).....	662
WANG, H. H., & GREGORY, R. T.	On the reduction of an arbitrary real square matrix to tri-diagonal form (N).....	501
WHITE, PAUL A., & BROWN, ROBERT R.	A comparison of methods for computing the eigenvalues and eigenvectors of a real symmetric matrix.....	457
WILCOX, W. R.	Asymptotic computation of the repeated integrals of the error function complement.....	98
WITTY, W. H.	A new method of numerical integration of differential equations (N).....	497
WRATHALL, CLAUDE P.	New factors of Fermat numbers (N).....	324

INDEX OF REVIEWS BY AUTHOR OF WORK REVIEWED

<i>Author</i>	<i>Review Number</i>	<i>Table Classification</i>	<i>Page</i>
ACKOFF, R. L.	28	[X]	168
AIKEN, HOWARD, Editor	83	[P, X, Z]	524
ALEXANDER, J. M.	96	[P, X]	679
ANDERSEN, CHARLES	56	[X]	337
ARBIB, MICHAEL A.	101	[Z]	684
ARDEN, BRUCE W.	33	[X, Z]	171
ARNOLD, B. H.	8	[G]	154
ARSCOTT, F. M.	14	[L]	159
ATKINS, JEAN	7	[F, Z]	153
BARK, L. S.	16	[L]	160
BARRETT, ROLIN F.	48	[L]	332
BECKER, JOSEPH	24	[X]	165
BELIAKOV, V. M.	93	[I, M]	676

<i>Author</i>	<i>Review Number</i>	<i>Table Classification</i>	<i>Page</i>
BELLMAN, RICHARD, Editor	76	[K, X]	517
BENNETT, B. M.	74	[K]	514
BERRY, F. J.	3	[F]	151
BETCHOV, R.	80	[L, M]	522
BIERLEIN, JAMES A.	19	[L, M, S, T]	163
BLACKSHAW, GEORGE E.	55	[V, X]	337
BLANCH, G.	15	[L]	159
BOERNGEN, JOSEPHINE G.	2	[C]	151
BRAM, JOSEPH	91	[H, M, W, X]	675
BUCHHOLZ, WERNER, Editor	88	[Z]	529
CHABAUTY, C.	42	[F]	327
CHI, BENJAMIN E.	44	[G, S]	329
CHURCHILL, RUEL V.	18	[I, M]	162
CLAASSEN, RALPH W.	55	[V, X]	337
CLEMM, DONALD S.	15	[L]	159
COLMAN, H. L.	35	[Z]	172
COMMITTEE ON FUNDAMENTAL CONSTANTS OF THE NATIONAL ACADEMY OF SCIENCES-NA- TIONAL RESEARCH COUNCIL	53	[S]	335
CONCUS, PAUL	81	[M, X]	523
CORBATO, F. J.	102	[Z]	685
COURANT, R.	97	[S, X]	680
COWAN, J. D.	89	[Z]	531
COXETER, H. S. M.	25	[X]	166
DEMING, LOLA S.	9	[K]	154
DEUTSCH, RALPH	52	[Q, S]	334
DODD, K. N.	98	[V, Z]	683
DOETSCH, GUSTAV	20	[L, P]	163
EISENHART, CHURCHILL	9	[K]	154
EMERSLEBEN, OTTO	39	[A]	326
ERDÖS, PAUL	42	[F]	327
FADDEEV, D. K.	71	[G, X]	512
FADDEVA, V. N.	71	[G, X]	512
FINNEY, D. J.	74	[K]	514
FISHER, M. E.	63	[Z]	344
FORD, G. W.	57	[X]	338
FOX, L.	87	[X]	528
FRIEDMAN, AVNER	49	[L]	332
GARDINER, V. L.	66	[F]	509
GAUSS, KARL FRIEDRICH	84	[Q, X]	525
GELFOND, A. O.	73	[I]	514
GIANNESINI, F.	40	[A]	326
GILDERSLEEVE, T. R.	62	[Z]	344
GILL, ARTHUR	38	[Z]	174
GOODSTEIN, R. L.	43	[G]	328
GRAM, CHRISTIAN, Editor	30	[X]	169
GREENBERG, B. G., Editor	46	[K]	331
GREENWOOD, J. ARTHUR	13	[K]	157
GROVER, FREDERICK C.	22	[P]	164
GRUENBERGER, F. J.	37	[Z]	173
GÜNTSCH, FRITZ RUDOLF	60	[Z]	339
HARTLEY, H. O.	13	[K]	157
HAYES, ROBERT M.	24	[X]	165
HAYES, WALLACE D.	54	[V]	336

<i>Author</i>	<i>Review Number</i>	<i>Table Classification</i>	<i>Page</i>
HERRIOT, J. G.	58	[X]	338
HILBERT, D.	97	[S, X]	680
HOFFMANN, WALTER, Editor	61	[Z]	340
Hsu, P.	74	[K]	514
IANOVICH, L. A.	21	[M, X]	163
KARMAZINA, LENA N.	79	[L]	521
KARST, EDGAR	1	[A, Z]	151
KENT, ALLEN	103	[Z]	686
KHABAZA, I. M.	14	[L]	159
KHOVANSKII, A. N.	70	[G, H, J, L, X]	511
KRAVTSOVA, R. I.	93	[I, M]	676
KRULL, WOLFGANG	68	[G]	510
KRYLOV, V. I.	21	[M, X]	163
KRYLOV, V. I.	82	[M, X]	523
KUZNETSOV, P. I.	16	[L]	160
LADEN, H. N.	62	[Z]	344
LARSEN, HANS A.	41	[A, D]	327
LARSSON, ROBERT D.	72	[G, X, Z]	513
LATSCHA, R.	74	[K]	514
LAZARUS, R. B.	66	[F]	509
LEFSCHETZ, SOLOMON	50	[L]	333
LEHMER, D. H.	67	[F]	510
LEKHNITSKII, S. G.	51	[P]	333
LUGIN, V. V.	21	[M, X]	163
LUMLEY, J. F.	80	[L, M]	522
MACKAY, D. M.	63	[Z]	344
MACMILLAN, R. H.	23	[P, X]	165
MACON, NATHANIEL	31	[X]	169
MAIN, WILLIAM F., Editor	83	[P, X, Z]	524
MANNE, ALAN S., Editor	29	[X]	168
MARKOWITZ, H. M., Editor	29	[X]	168
MARTIN, CELIA S.	9	[K]	154
McCLAIN, J. W.	17	[L]	161
McCRACKEN, D. D.	37	[Z]	173
MOSES, L. E.	12	[K]	156
NELSON, C. W.	95	[L, M]	678
NIVEN, IVAN	4	[F]	152
OAKFORD, R. V.	12	[K]	156
OLDS, C. D.	6	[F]	153
ORE, OYSTEIN	26	[X]	166
OSIPOVA, L. N.	94	[L, M]	677
OTTO, EDWARD	99	[X]	683
OWEN, D. B.	10	[K]	155
PALLADINO, N. J.	17	[L]	161
PEMBERTON, JOHN	92	[K, O, X, Z]	676
PETERS, JEAN	65	[D]	509
PHILLIPS, ROBERT D.	77	[K, Z]	517
PIMBLEY, W. T.	95	[L, M]	678
PLETTE, WILLIAM S.	64	[Z]	345
PODUSKA, J. W.	102	[Z]	685
PROBSTEIN, RONALD F.	54	[V]	336
RAPPAPORT, M. G.	93	[I, M]	676
REDISH, K. A.	32	[X]	170
RIVETT, P.	28	[X]	168

<i>Author</i>	<i>Review Number</i>	<i>Table Classification</i>	<i>Page</i>
ROTH, K. F.	5	[F]	153
ROUITS, J. P.	40	[A]	326
SAATY, T. L., Editor	45	[G, X]	329
SAATY, THOMAS L.	91	[H, M, W, X]	675
SALZER, J. H.	102	[Z]	685
SARHAN, A. E., Editor	46	[K]	331
SAXON, JAMES A.	36	[Z]	172
SAXON, JAMES A.	64	[Z]	345
SCHOENIG, F. C., JR.	17	[L]	161
SETH, B. R., Executive Editor	59	[X]	339
SHERMAN, PHILIP M.	34	[Z]	172
SINGH, K.	80	[L, M]	522
SMALLWOOD, C.	35	[Z]	172
SOBOLEV, S. L.	86	[S, X]	526
SPIRA, ROBERT	7	[F, Z]	153
SPIRA, ROBERT	78	[L]	519
STEIN, P. R.	66	[F]	509
STEWART, FRANK M.	69	[G]	510
STIEFEL, EDWARD L.	100	[X]	684
THORNE, CHARLES J.	55	[V, X]	337
THORP, EDWARD O.	47	[K, X]	331
TODHUNTER, I.	85	[R]	526
TUMARKIN, S. A.	94	[L, M]	677
UHLENBECK, G. E.	57	[X]	338
VAJDA, S.	27	[X]	167
WEINTRAUB, SOL	75	[K]	515
WILKINSON, J. H.	90	[G, X]	675
WINOGRAD, S.	89	[Z]	531
ZELEN, MARVIN, Editor	11	[K]	156
ZHURINA, MARIYA I.	79	[L]	521

NOTE

<i>Title</i>	<i>Page</i>
New Journal.....	178

TABLE ERRATA

<i>No.</i>	<i>Author</i>	<i>Title</i>	<i>Page</i>
358	BURUNOVA, N. M.	<i>Spravočnik po matematiceskim tablitsam, Dopolnenie N. 1..</i>	536
358	BURUNOVA, N. M.	<i>A Guide to Mathematical Tables, Supplement No. 1.....</i>	536
352	BYRD, P. F. & FRIEDMAN, M. D.	<i>Handbook of Elliptic Integrals for Engineers and Physicists...</i>	532
359	BYRD, P. F. & FRIEDMAN, M. D.	<i>Handbook Of Elliptic Integrals for Engineers and Physicists...</i>	687
349	DYESS, W. BEN & GILMORE, ROBERT O.	<i>Mathematics of Business and Finance</i>	347
353	ERDÉLYI, A., Editor	<i>Tables of Integral Transforms</i>	532

No.	Author	Title	Page
360	ERDÉLYI, A., MAGNUS, W., OBERHETTINGER, F. & TRICOMI, F. G.	<i>Higher Transcendental Functions</i>	687
347	FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	<i>An Index of Mathematical Tables</i>	347
348	GRAY, PETER	“Values of the trigonometric quadratic surds”	347
361	HEATLEY, A. H.	“A short table of the Toronto function”	687
349	KENT, FREDERICK C. & KENT, MAUDE E.	<i>Compound Interest and Annuity Tables</i>	347
342	KOPAL, ZDENĚK	<i>Numerical Analysis</i>	175
354	KRAITCHIK, M.	<i>Recherches sur la Théorie des Nombres, v. 1</i>	533
358	LEBEDEV, A. V. & FEDEROVA, R. M.	<i>Spravochnik po matematicheskim tablitsam</i>	536
358	LEBEDEV, A. V. & FEDEROVA, R. M.	<i>A Guide to Mathematical Tables</i>	536
349	MACKENZIE, D. H.	<i>Mathematics of Finance</i>	347
343	MCCLAIN, J. W., SCHOENIG, F. C., JR. & PALLADINO, N. J.	<i>Table of Bessel Functions to Argument 85</i>	175
350	MILNE, WILLIAM EDMUND	<i>Numerical Calculus</i>	348
344	NATIONAL BUREAU OF STANDARDS	<i>Tables of the Bivariate Normal Distribution Function and Related Functions</i>	176
351	NATIONAL BUREAU OF STANDARDS	<i>Tables of Sines and Cosines to Fifteen Decimal Places at Hundredths of a Degree</i>	348
356	NATIONAL BUREAU OF STANDARDS	<i>Tables of the Binomial Probability Distribution</i>	533
355	OWEN, DONALD B.	<i>Handbook of Statistical Tables</i>	533
345	RABINOWITZ, P. & WEISS, G.	“Tables of abscissas and weights for numerical evaluation of integrals of the form $\int_0^\infty e^{-x} f(x) dx$ ”	177
346	STROUD, A. H. & SECREST, DON	“Approximate integration formulas for certain spherically symmetric regions”	178
357	VON STERNECK, R. D.	“Empirische Untersuchung über den Verlauf der zahlentheoretischen Funktion $\sigma(n) = \sum_{x=1}^n \mu(x)$ im Intervalle von 0 bis 150000”	534
357	VON STERNECK, R. D.	“Empirische Untersuchung über den Verlauf der zahlentheoretischen Funktion $\sigma(n) = \sum_{x=1}^n \mu(x)$ im Intervalle 150000 bis 500000”	534

CORRIGENDA

Author	Title	Page
BRIDGE, JOHN F. & ANGRIST, STANLEY W.	“An extended table of roots of $J_n'(x)Y_n'(\beta x) - J_n'(\beta x)Y_n'(x) = 0$ ”	348
NEWBERY, A. C. R.	“Multistep integration formulas”	536
THORNE, CHARLES J., BLACKSHAW, GEORGE E. & CLAASSEN, RALPH W.	<i>Steady-State Motion of Cables in Fluids, Part I. Tables of Neutrally Buoyant Cable Functions</i>	688
WHITTLESEY, JOHN R. B.	“Incomplete gamma functions for evaluating Erlang process probabilities”	536

REVIEWS BY SUBJECT

A. Arithmetical Tables, Mathematical Constants

<i>Author</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
EMERSLEBEN, OTTO	39	<i>Quadratwurzeln von 1-1000 nebst Reziproken auf 20 Dezimalstellen</i>	326
GIANNESINI, F. & ROUITS, J. P.	40	<i>Tables des coefficients du binôme et des factorielles</i>	326
KARST, EDGAR	1	<i>Six-Digit Fraction Conversion from Decimal to Octal with Unlimited Accuracy</i>	151
LARSEN, HANS A.	41	<i>Natural Sines and Trigonometrical Quadratic Surds to 50 Decimal Places</i>	327

C. Logarithms

BOERNGEN, JOSEPHINE G.	2	<i>Table of Common Logarithms and their Squares</i>	151
------------------------	---	---	-----

D. Circular Functions

LARSEN, HANS A.	41	<i>Natural Sines and Trigonometrical Quadratic Surds to 50 Decimal Places</i>	327
PETERS, JEAN	65	<i>Eight-Place Tables of Trigonometric Functions for Every Second of Arc</i>	509

F. Theory of Numbers

BERRY, F. J.	3	"Table of prime numbers from 12000000 to 12041000"	151
CHABAUTY, C., ET AL.	42	<i>Introduction à la Théorie des Nombres</i>	327
ERDÖS, PAUL	42	<i>Quelque problèmes de la Théorie des Nombres</i>	327
GARDINER, V. L., LAZARUS, R. B. & STEIN, P. R.	66	<i>Tables of Solutions of the Diophantine Equation $x^3 + y^3 = z^3 - d$</i>	509
LEHMER, D. H.	67	"On a problem of Störmer"	510
NIVEN, IVAN	4	<i>Diophantine Approximations</i>	152
OLDS, C. D.	6	<i>Continued Fractions</i>	153
ROTH, K. F.	5	<i>Rational Approximations to Irrational Numbers</i>	153
SPIRA, ROBERT & ATKINS, JEAN	7	<i>Coding of Primes for a Decimal Machine</i>	153

G. Higher Algebra

ARNOLD, B. H.	8	<i>Logic and Boolean Algebra</i>	154
CHI, BENJAMIN E.	44	<i>A Table of Clebsch-Gordon Coefficients</i>	329
FADDEEV, D. K. & FADDEVA, V. N.	71	<i>Computational Methods of Linear Algebra</i>	512
GOODSTEIN, R. L.	43	<i>Boolean Algebra</i>	328
KHOVANSKII, A. N.	70	<i>The Application of Continued Fractions and their Generalizations to Problems in Approximation Theory</i>	511
KRULL, WOLFGANG	68	<i>Elementare und klassische Algebra, vom modernen Standpunkt</i>	510
LARSSON, ROBERT D.	72	<i>Equalities and Approximations with "FORTRAN" Programming</i>	513
SAATY, T. L., Editor	45	<i>Lectures on Modern Mathematics, Volume I</i>	329
STEWART, FRANK M.	69	<i>Introduction to Linear Algebra</i>	510
WILKINSON, J. H.	90	<i>Rounding Errors in Algebraic Processes</i>	675

H. Numerical Solution of Equations

<i>Author</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
KHOVANSKII, A. N.	70	<i>The Application of Continued Fractions and their Generalizations to Problems in Approximation Theory</i>	511
SAATY, THOMAS L. & BRAM, JOSEPH	91	<i>Nonlinear Mathematics</i>	675

I. Finite Differences, Interpolation

CHURCHILL, RUEL V.	18	<i>Fourier Series and Boundary Value Problems</i>	162
GELFOND, A. O.	73	<i>Calcul des Différences Finies</i>	514

J. Summation of Series

KHOVANSKII, A. N.	70	<i>The Application of Continued Fractions and their Generalizations to Problems in Approximation Theory</i>	511
-------------------	----	---	-----

K. Statistics

BELLMAN, RICHARD, Editor	76	<i>Mathematical Optimization Techniques</i>	517
EISENHART, CHURCHILL, DEMING, LOLA S. & MARTIN, CELIA S.	9	<i>Tables Describing Small-Sample Properties of the Mean, Median, Standard Deviation, and Other Statistics in Sampling from Various Distributions</i> ..	154
FINNEY, D. J., LATSCHA, R., BENNETT, B. M. & HSU, P.	74	<i>Tables for Testing Significance in a 2×2 Contingency Table</i>	514
GREENWOOD, J. ARTHUR & HARTLEY, H. O.	13	<i>Guide to Tables in Mathematical Statistics</i>	157
MOSES, L. E. & OAKFORD, R. V.	12	<i>Tables of Random Permutations</i>	156
OWEN, D. B.	10	<i>Factors for One-Sided Tolerance Limits and for Variables Sampling Plans</i>	155
PEMBERTON, JOHN	92	<i>How to Find Out in Mathematics</i>	676
PHILLIPS, ROBERT D.	77	<i>Tables Useful in Statistics and Information Theory</i> ..	517
SARHAN, A. E. & GREENBERG, B. G., Editors	46	<i>Contributions to Order Statistics</i>	331
THORP, EDWARD O.	47	<i>Beat the Dealer: A Winning Strategy for the Game of Twenty-One</i>	331
WEINTRAUB, SOL	75	<i>Tables of the Cumulative Binomial Probability Distribution for Small Values of p</i>	515
ZELÉN, MARVIN, Editor	11	<i>Statistical Theory of Reliability</i>	156

L. Higher Mathematical Functions

ARSCOTT, F. M. & KHABAZA, I. M.	14	<i>Tables of Lamé Polynomials</i>	159
BARK, L. S. & KUZNETSOV, P. I.	16	<i>Tablitsy tsilindricheskikh funktsiĭ ot dvukh mnimyykh peremennykh (Tables of Cylinder Functions of Two Imaginary Variables)</i>	160
BARRETT, ROLIN F.	48	<i>Tables of Modified Struve Functions of Orders Zero and Unity</i>	332
BELIAKOV, V. M., KRAVTSOVA, R. I. & RAPPAPORT, M. G.	93	<i>Tablitsy ellipticheskikh integralov, Tom I (Tables of elliptic integrals, v. I)</i>	676

<i>Author</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
BIERLEIN, JAMES A.	19	"Gouy diffractometry in thermal diffusion".....	163
BLANCH, G. & CLEMM, DONALD S.	15	<i>Tables Relating to the Radial Mathieu Functions, Vol. 1: Functions of the First Kind</i>	159
DOETSCH, GUSTAV	20	<i>Guide to the Applications of Laplace Transforms</i>	163
FRIEDMAN, AVNER	49	<i>Generalized Functions and Partial Differential Equations</i>	332
KHOVANSKII, A. N.	70	<i>The Application of Continued Fractions and their Generalizations to Problems in Approximation Theory</i>	511
LEFSCHETZ, SOLOMON	50	<i>Differential Equations—Geometric Theory</i>	333
MCCLAIN, J. W., SCHOE- NIG, F. C., JR. & PALLADINO, N. J.	17	<i>Table of Bessel Functions to Argument 85</i>	161
OSIPOVA, L. N. & TUMARKIN, S. A.	94	<i>Tablitsy dlya rascheta toroobraznykh obolochek (Tables for the calculation of toroidal shells)</i>	677
PIMBLEY, W. T. & NELSON, C. W.	95	<i>Table of values of $2\sqrt{x} F(\sqrt{x})$</i>	678
SINGH, K., LUMLEY, J. F. & BETCHOV, R.	80	<i>Modified Hankel Functions and their Integrals to Argument 10</i>	522
SPIRA, ROBERT	78	<i>Table of the Riemann Zeta Function</i>	519
ZHURINA, MARIYA I. & KARMAZINA, LENA N.	79	<i>Tablitsy funktsii Lezhandra $P_{-1/2+i\tau}(x)$, Tom II (Tables of the Legendre functions $P_{-1/2+i\tau}(x)$, Vol. II)</i>	521
M. Integrals			
BELIAKOV, V. M., KRAVTSOVA, R. I. & RAPPAPOORT, M. G.	93	<i>Tablitsy ellipticheskikh integralov, Tom I (Tables of elliptic integrals, v. I)</i>	676
BIERLEIN, JAMES A.	19	"Gouy diffractometry in thermal diffusion".....	163
CHURCHILL, RUEL V.	18	<i>Fourier Series and Boundary Value Problems</i>	162
CONCUS, PAUL	81	<i>Additional Tables for the Evaluation of $\int_0^\infty x^\beta e^{-\alpha f(x)} dx$ by Gauss-Laguerre Quadrature</i>	523
KRYLOV, V. I.	82	<i>Approximate Calculation of Integrals</i>	523
KRYLOV, V. I., LUGIN, V. V. & IANOVICH, L. A.	21	<i>Tables for the Numerical Integration of Functions with Power Singularities</i>	163
OSIPOVA, L. N. & TUMARKIN, S. A.	94	<i>Tablitsy dlya rascheta toroobraznykh obolochek (Tables for the calculation of toroidal shells)</i>	677
PIMBLEY, W. T. & NELSON, C. W.	95	<i>Table of values of $2\sqrt{x} F(\sqrt{x})$</i>	678
SAATY, THOMAS L. & BRAM, JOSEPH	91	<i>Nontlinear Mathematics</i>	675
SINGH, K., LUMLEY, J. F. & BETCHOV, R.	80	<i>Modified Hankel Functions and their Integrals to Argument 10</i>	522
O. Actuarial Science			
PEMBERTON, JOHN	92	<i>How to Find Out in Mathematics</i>	676
P. Engineering			
AIKEN, HOWARD & MAIN, WILLIAM F., Editors	83	<i>Switching Theory in Space Technology</i>	524
ALEXANDER, J. M., ET AL.	96	<i>Progress in Applied Mechanics</i>	679
DOETSCH, GUSTAV	20	<i>Guide to the Applications of Laplace Transforms</i>	163

<i>Author</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
GROVER, FREDERICK C.	22	<i>Inductance Calculations Working Formulas and Tables</i>	164
LEKHNITSKII, S. G.	51	<i>Theory of Elasticity of an Anisotropic Elastic Body</i> . . .	333
MACMILLAN, R. H.	23	<i>Non-Linear Control Systems Analysis</i>	165
Q. Astronomy			
DEUTSCH, RALPH	52	<i>Orbital Dynamics of Space Vehicles</i>	334
GAUSS, KARL FRIEDRICH	84	<i>Theory of the Motion of the Heavenly Bodies Moving about the Sun in Conic Sections</i>	525
R. Geodesy			
TODHUNTER, I.	85	<i>A History of the Mathematical Theories of Attraction and the Figure of the Earth</i>	526
S. Physics, Geophysics, Crystallography			
BIERLEIN, JAMES A.	19	"Gouy diffractometry in thermal diffusion"	163
CHI, BENJAMIN E.	44	<i>A Table of Clebsch-Gordan Coefficients</i>	329
COMMITTEE ON FUNDAMENTAL CONSTANTS OF THE NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL, A. G. MC-NISH (Chairman)	53	"New values for the physical constants"	335
COURANT, R. & HILBERT, D.	97	<i>Methods of Mathematical Physics</i>	680
DEUTSCH, RALPH	52	<i>Orbital Dynamics of Space Vehicles</i>	334
SOBOLEV, S. L.	86	<i>Applications of Functional Analysis in Mathematical Physics</i>	526
T. Chemistry			
BIERLEIN, JAMES A.	19	"Gouy diffractometry in thermal diffusion"	163
V. Aerodynamics, Hydrodynamics, Ballistics			
DODD, K. N.	98	<i>Mathematics in Aeronautical Research</i>	683
HAYES, WALLACE D. & PROBSTEN, RONALD F.	54	<i>Hypersonic Flow Theory</i>	336
THORNE, CHARLES J., BLACKSHAW, GEORGE E., & CLAASSEN, RALPH W.	55	<i>Steady-State Motion of Cables in Fluids, Part I, Tables of Neutrally Buoyant Cable Functions</i>	337
W. Economics and Social Sciences			
SAATY, THOMAS L. & BRAM, JOSEPH	91	<i>Nonlinear Mathematics</i>	675
X. Numerical Analysis and Applied Mathematics			
ACKOFF, R. L. & RIVETT, P.	28	<i>A Manager's Guide to Operations Research</i>	168
AIKEN, HOWARD & MAIN, WILLIAM F., Editors	83	<i>Switching Theory in Space Technology</i>	524
ALEXANDER, J. M., ET AL.	96	<i>Progress in Applied Mechanics</i>	679

<i>Author</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
ANDERSEN, CHARLES	56	"The Ruler Method, An Examination of a Method for Numerical Determination of Fourier Coefficients"	337
ARDEN, BRUCE W.	33	<i>An Introduction to Digital Computing</i>	171
BECKER, JOSEPH & HAYES, ROBERT M.	24	<i>Information Storage and Retrieval: Tools, Elements, Theories</i>	165
BELLMAN, RICHARD, Editor	76	<i>Mathematical Optimization Techniques</i>	517
CONCUS, PAUL	81	<i>Additional Tables for the Evaluation of</i> $\int_0^\infty x^\beta e^{-\alpha f(x)} dx$ <i>by Gauss-Laguerre Quadrature</i>	523
COURANT, R. & HILBERT, D.	97	<i>Methods of Mathematical Physics</i>	680
COXETER, H. S. M.	25	<i>Regular Polytopes</i>	166
FADDEEV, D. K. & FADDEVA, V. N.	71	<i>Computational Methods of Linear Algebra</i>	512
FOX, L.	87	<i>Numerical Solution of Ordinary and Partial Differential Equations</i>	528
GAUSS, KARL FRIEDRICH	84	<i>Theory of the Motion of the Heavenly Bodies Moving about the Sun in Conic Sections</i>	525
GRAM, CHRISTIAN, Editor	30	<i>Selected Numerical Methods</i>	169
HERRIOT, J. G.	58	<i>Methods of Mathematical Analysis and Computation</i>	338
KHOVANSKIĬ, A. N.	70	<i>The Application of Continued Fractions and their Generalizations to Problems in Approximation Theory</i>	511
KRYLOV, V. I.	82	<i>Approximate Calculation of Integrals</i>	523
KRYLOV, V. I., LUGIN, V. V. & IANOVICH, L. A.	21	<i>Tables for the Numerical Integration of Functions with Power Singularities</i>	163
LARSSON, ROBERT D.	72	<i>Equalities and Approximations with "FORTRAN" Programming</i>	513
MACMILLAN, R. H.	23	<i>Non-Linear Control Systems Analysis</i>	165
MACON, NATHANIEL	31	<i>Numerical Analysis</i>	169
MANNE, ALAN S. & MARKOWITZ, H. M., Editors	29	<i>Studies in Process Analysis</i>	168
ORE, OYSTEIN	26	<i>Graphs and Their Uses</i>	166
OTTO, EDWARD	99	<i>Nomography</i>	683
PEMBERTON, JOHN	92	<i>How to Find Out in Mathematics</i>	676
REDISH, K. A.	32	<i>An Introduction to Computational Methods</i>	170
SAATY, T. L., Editor	45	<i>Lectures on Modern Mathematics, Volume I</i>	329
SAATY, THOMAS L. & BRAM, JOSEPH	91	<i>Nonlinear Mathematics</i>	675
SETH, B. R., Executive Editor	59	<i>Proceedings of the Seventh Congress on Theoretical and Applied Mechanics</i>	339
SOBOLEV, S. L.	86	<i>Applications of Functional Analysis in Mathematical Physics</i>	526
STIEFEL, EDWARD L.	100	<i>An Introduction to Numerical Mathematics</i>	684
THORNE, CHARLES J., BLACKSHAW, GEORGE E. & CLAASSEN, RALPH W.	55	<i>Steady-State Motion of Cables in Fluids, Part I. Tables of Neutrally Buoyant Cable Functions</i>	337
THORP, EDWARD O.	47	<i>Beat the Dealer: A Winning Strategy for the Game of Twenty-One</i>	331
UHLENBECK, G. E. & FORD, G. W.	57	"The theory of linear graphs with applications to the theory of the virial development of the properties of gases"	338

<i>Author</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
VAJDA, S.	27	<i>Readings in Mathematical Programming</i>	167
WILKINSON, J. H.	90	<i>Rounding Errors in Algebraic Processes</i>	675

Z. Calculating Machines and Mechanical Computation

AIKEN, HOWARD & MAIN, WILLIAM F., Editors	83	<i>Switching Theory in Space Technology</i>	524
ARBIB, MICHAEL A.	101	<i>Brains, Machines, and Mathematics</i>	684
ARDEN, BRUCE W.	33	<i>An Introduction to Digital Computing</i>	171
BUCHHOLZ, WERNER, Editor	88	<i>Planning a Computer System</i>	529
COLMAN, H. L. & SMALL- WOOD, C.	35	<i>Computer Language</i>	172
CORBATO, F. J., PODUSKA, J. W. & SALZER, J. H.	102	<i>Advanced Computer Programming</i>	685
DODD, K. N.	98	<i>Mathematics in Aeronautical Research</i>	683
GILL, ARTHUR	38	<i>Introduction to the Theory of Finite-State Machines</i> . . .	174
GRUENBERGER, F. J. & McCRACKEN, D. D.	37	<i>Introduction to Electronic Computers, Problem Solving with the IBM 1620</i>	173
GÜNTSCH, FRITZ RUDOLF	60	<i>Programmierung digitaler Rechenautomaten</i>	339
HOFFMANN, WALTER, Editor	61	<i>Digital Information Processors</i>	340
KARST, EDGAR	1	<i>Six-Digit Fraction Conversion from Decimal to Octal with Unlimited Accuracy</i>	151
KENT, ALLEN	103	<i>Textbook on Mechanized Information Retrieval</i>	686
LADEN, H. N. & GILDER- SLEEVE, T. R.	62	<i>System Design for Computer Applications</i>	344
LARSSON, ROBERT D.	72	<i>Equalities and Approximations with "FORTRAN" Programming</i>	513
MACKAY, D. M. & FISHER, M. E.	63	<i>Analogue Computing at Ultra-High Speed</i>	344
PEMBERTON, JOHN	92	<i>How to Find Out in Mathematics</i>	676
PHILLIPS, ROBERT D.	77	<i>Tables Useful in Statistics and Information Theory</i> . . .	517
SAXON, JAMES A.	36	<i>Programming the IBM 7090: A Self-Instructional Programmed Manual</i>	172
SAXON, JAMES A. & PLETTE, WILLIAM S.	64	<i>Programming the IBM 1401</i>	345
SHERMAN, PHILIP M.	34	<i>Programming and Coding Digital Computers</i>	172
SPIRA, ROBERT & ATKINS, JEAN	7	<i>Coding of Primes for a Decimal Machine</i>	153
WINOGRAD, S. & COWAN, J. D.	89	<i>Reliable Computation in the Presence of Noise</i>	531

Mathematics of Computation

A Quarterly Journal

Edited by

HARRY POLACHEK, Chairman

PHILIP J. DAVIS

ALAN FLETCHER

ALAN J. HOFFMAN

A. S. HOUSEHOLDER

PETER D. LAX

Y. L. LUKE

PHILIP M. MORSE

DANIEL SHANKS

R. S. VARGA

J. W. WRENCH, JR.

XVIII

NOS. 85-88

1964

Published for the

National Academy of Sciences—National Research Council

By the

American Mathematical Society