

*Proceedings of the*  
**CAMBRIDGE PHILOSOPHICAL  
SOCIETY**

(MATHEMATICAL AND PHYSICAL SCIENCES)

VOLUME 63

CAMBRIDGE  
AT THE UNIVERSITY PRESS  
1967

PUBLISHED BY  
THE SYNDICS OF THE CAMBRIDGE UNIVERSITY PRESS  
Bentley House, P.O. Box 92, 200 Euston Road, London, N.W. 1  
American Branch: 32 East 57th Street, New York, N.Y. 10022

*Printed in Great Britain at the University Printing House, Cambridge*

## INDEX

	<b>PAGE</b>
<b>Ackroyd, J. A. D.</b> On the laminar compressible boundary layer with stationary origin on a moving flat wall . . . . .	871
<b>Ackroyd, J. A. D.</b> On the laminar compressible boundary layer induced by the passage of a plane shock wave over a flat wall . . . . .	889
<b>Agarwal, R. P.</b> and <b>Verma, Arun.</b> Generalized basic hypergeometric series with unconnected bases . . . . .	727
<b>Albert, R. H.</b> Still another way to calculate representations of the three-dimensional pure rotation group . . . . .	273
<b>Anderson, W. M.</b> Diffraction of an incomplete expansion wave by a corner . . . . .	909
<b>Atkin, A. O. L., Bratley, P., Macdonald, I. G. and McKay, J. K. S.</b> Some computations for $m$ -dimensional partitions . . . . .	1097
<b>Bajpai, S. D.</b> Some integrals involving Gauss's hypergeometric function and Maijer's $G$ -function . . . . .	1049
<b>Baker, A.</b> Simultaneous rational approximations to certain algebraic numbers . . . . .	693
<b>Baker, A.</b> A note on an integral integer-valued function of several variables . . . . .	715
<b>Baker, J. W.</b> and <b>Petersen, G. M.</b> Summability fields which span the bounded sequences	99
<b>Baldwin, P.</b> Finite amplitude convection in a self-gravitating fluid sphere containing heat sources . . . . .	855
<b>Behzad, Mehdi.</b> A criterion for the planarity of the total graph of a graph . . . . .	679
<b>Bhattacharya, Samir Kumar.</b> A result of hypergeometric functions . . . . .	179
<b>Billigheimer, C. E.</b> Solutions of a non-linear differential equation. I . . . . .	743
<b>Bird, N. F. (Joint Author.)</b> Monte Carlo estimates of critical percolation probabilities . . . . .	477
<b>Bratley, P. (Joint Author.)</b> Some computations for $m$ -dimensional partitions . . . . .	1097
<b>Burch, Lindsay.</b> A note on ideals of homological dimension one in local domains . . . . .	661
<b>Burman, R.</b> Coupled wave equations for propagation in inhomogeneous compressible plasmas . . . . .	1229
<b>Burridge, R.</b> Lacunas in two-dimensional wave propagation . . . . .	819
<b>Calder, C. C. (Joint Author.)</b> Place stress theories . . . . .	1369
<b>Chadwick, P. and Trowbridge, E. A.</b> Elastic wave fields generated by scalar wave functions . . . . .	1177
<b>Chadwick, P. and Trowbridge, E. A.</b> Oscillations of a rigid sphere embedded in an infinite elastic solid. I. Torsional oscillations . . . . .	1189
<b>Chadwick, P. and Trowbridge, E. A.</b> Oscillations of a rigid sphere embedded in an infinite elastic solid. II. Rectilinear oscillations . . . . .	1207
<b>Chawla, Sahib Singh.</b> Fluctuating boundary layer on a magnetized plate . . . . .	513
<b>Chillingworth, D. R. J.</b> Collapsing three-dimensional convex polyhedra . . . . .	353
<b>Cofman, Judita.</b> On a conjecture of Hughes . . . . .	647
<b>Cohn, J. H. E.</b> Large eigenvalues of a Sturm-Liouville problem . . . . .	473

	PAGE
<b>Conway, William E.</b> The sluice gate . . . . .	247
<b>Cunningham, F.</b> <i>M</i> -structure in Banach spaces . . . . .	613
<b>Das, G. (Joint Author).</b> On absolute summability factors of infinite series and their application to Fourier series . . . . .	107
<b>Das, G.</b> On a theorem of Hardy and Littlewood . . . . .	707
<b>Davies, Roy O.</b> The least extension of a closure operator on a sublattice . . . . .	9
<b>Davies, Roy O.</b> An intersection theorem of Erdős and Rado . . . . .	995
<b>Dean, P. and Bird, N. F.</b> Monte Carlo estimates of critical percolation probabilities. . . . .	477
<b>Denniston, R. H. F.</b> On quadrics through five real points . . . . .	369
<b>Dirac, G. A.</b> On the structure of $k$ -chromatic graphs . . . . .	683
<b>Dumir, Vishwa Chander.</b> Asymmetric inequalities for non-homogeneous ternary quadratic forms . . . . .	277
<b>Dumir, Vishwa Chander.</b> Inhomogeneous minimum of indefinite quaternary quadratic forms . . . . .	291
<b>Dunn, H. S.</b> A generalization of the Laplace transform . . . . .	155
<b>Earl, J. P.</b> Corrigendum to the paper on uniform interpolation sets . . . . .	103
<b>Eggleston, H. G.</b> Concentrated sets . . . . .	93
<b>Evelyn, C. J. A.</b> Relations between arithmetical functions in prime number theory . . . . .	1027
<b>Ezeilo, J. O. C.</b> A generalization of a boundedness theorem for a certain third order differential equation. . . . .	735
<b>Fremlin, D. H.</b> Abstract Köthe spaces. I . . . . .	653
<b>Fremlin, D. H.</b> Abstract Köthe spaces. II . . . . .	951
<b>Fremlin, D. H.</b> Abstract Köthe spaces. III . . . . .	957
<b>Fröhlich, A.</b> Quadratic forms 'a la' local theory . . . . .	579
<b>Garling, D. J. H.</b> On topological sequence spaces . . . . .	997
<b>Garling, D. J. H.</b> The $\beta$ - and $\gamma$ -duality of sequence spaces . . . . .	963
<b>Goldie, Charles.</b> A class of infinitely divisible random variables . . . . .	1141
<b>Green, A. E. and Naghdi, P. M.</b> The linear theory of an elastic Casserat plate . . . . .	537
<b>Green, A. E. and Naghdi, P. M.</b> The linear theory of an elastic Casserat plate (Corrigenda) . . . . .	922
<b>Gregory, R. D.</b> An expression theorem applicable to problems of wave propagation in an elastic half-space containing a cavity . . . . .	1341
<b>Grimshaw, R.</b> The refraction of sound pulses . . . . .	1247
<b>Gupta, A. S. and Rai, Lajpat.</b> Stability of an elasto-viscous liquid film flowing down an inclined plane . . . . .	527
<b>Hall, Laurence S.</b> Bessel function $J_v(z)$ of complex order and its zeros. . . . .	141
<b>Hannan, E. J.</b> The concept of a filter . . . . .	221
<b>Harrow, Martin.</b> Further results for the solutions of certain third and fourth order differential equations . . . . .	147

# Index

v

	PAGE
<b>Hartley, B.</b> Locally nilpotent ideals of a Lie algebra . . . . .	257
<b>Heading, John.</b> Investigations into a new stratified hyperbolic profile . . . . .	439
<b>Heins, A. E. and Jones, D. S.</b> Note on diffraction by a disc . . . . .	851
<b>Heyde, C. C. and Rohatgi, V. K.</b> A pair of complementary theorems on convergence rates in the law of large numbers . . . . .	73
<b>Hunt, G. E. (Joint Author.)</b> The isotropic scattering of radiation in a finite homogeneous two-dimensional atmosphere . . . . .	209
<b>Hursch, J. L., Jr.</b> A theorem about hyperspaces . . . . .	597
<b>Islam, J. N.</b> On a conformal theory of gravitation . . . . .	809
<b>Jennings, A.</b> A direct iteration method of obtaining latent roots and vectors of a symmetric matrix . . . . .	755
<b>Jones, D. S. (Joint Author.)</b> Note on diffraction by a disc . . . . .	851
<b>Jones, D. S.</b> High-frequency diffraction of the radiation from a nearby source . . . . .	1145
<b>Kayande, A. A. and Lakshmikantham, V.</b> General dynamical systems and conditional stability . . . . .	199
<b>Kayande, A. A. and Muley, D. B.</b> Lyapunov functions and a control problem . . . . .	435
<b>Keer, L. M.</b> Mixed boundary-value problems for an elastic half-space . . . . .	1379
<b>Keilson, Julian and Wishart, David M. G.</b> Addenda to processes defined on a finite Markov chain . . . . .	187
<b>Kingman, J. F. C.</b> An inequality involving Radon–Nikodym derivatives . . . . .	195
<b>Kingman, J. F. C.</b> Additive set functions and the theory of probability . . . . .	767
<b>Kronheimer, E. H. and Penrose, R.</b> On the structure of causal spaces . . . . .	481
<b>Kwee, B.</b> A Tauberian theorem for the logarithmic method of summation . . . . .	401
<b>Kwee, B.</b> On Perron's method of summation . . . . .	1033
<b>Laitone, E. V.</b> Seiches over parabolic bottoms . . . . .	1167
<b>Lakshmikantham, V. (Joint Author.)</b> General dynamical systems and conditional stability . . . . .	199
<b>Larkin, F. M.</b> A class of methods for tabular interpolation . . . . .	1101
<b>Larman, D. J.</b> On the convex kernal of a compact set . . . . .	311
<b>Leibovich, S.</b> On the differential equation covering the rear stagnation point in magnetohydrodynamics and Goldstein's 'backward' boundary layers . . . . .	1327
<b>Lord, E. A.</b> Clifford algebras in general relativity . . . . .	785
<b>Love, E. R.</b> Two more hypergeometric integral equations . . . . .	1055
<b>Lue, A. S.-T.</b> Beer-invariants and extensions relative to a variety . . . . .	569
<b>Macdonald, I. G. (Joint Author.)</b> Some computations for $m$ -dimensional partitions . . . . .	1097
<b>McKay, J. K. S. (Joint Author.)</b> Some computations for $m$ -dimensional partitions . . . . .	1097
<b>Manning, Irwin.</b> A method for improving iteration procedures . . . . .	183
<b>Manocha, H. L.</b> Some bilinear generating functions for Jacobi polynomials . . . . .	457
<b>Manocha, H. L. and Sharma, B. L.</b> Generating functions of Jacobi polynomials . . . . .	431

	PAGE
<b>Marcus, Marvin and Minc, Henryk.</b> On a conjecture of B. L. van der Waerden . . . . .	305
<b>Maulik, Tapendra Nath.</b> Reflected and diffracted fields within a medium formed by a circular cylinder and two planes . . . . .	827
<b>Maunder, C. R. F.</b> Mod $p$ cohomology theories and the Bockstein spectral sequence . . . . .	23
<b>Maunder, C. R. F.</b> Stable operations in mod $pK$ -theory . . . . .	631
<b>Maunder, C. R. F.</b> Correction to 'Mod $p$ cohomology theories and the Bockstein spectral sequence' . . . . .	935
<b>Mayer, K. H. and Schwarzenberger, R. L. E.</b> Non-embedding theorems for $Y$ -spaces . . . . .	601
<b>Meldrum, J. D. P.</b> Central series in wreath products . . . . .	551
<b>Minc, Henryk (Joint Author.)</b> On a conjecture of B. L. van der Waerden . . . . .	305
<b>Mirsky, L.</b> Systems of representatives with repetition . . . . .	1135
<b>Mishra, Babban Prasad.</b> Strong summability of infinite series on a scale of Abel type summability methods . . . . .	119
<b>Mitra, D. N.</b> Bending of a simply-supported shallow spherical shell under a uniform line load on a part of a parallel circle . . . . .	239
<b>Mohanty, R.</b> On the convergence factor of a Fourier series . . . . .	129
<b>Mohanty, R. and Ray, B. K.</b> On the non-absolute summability of a Fourier series and the conjugate of a Fourier series by a Nörlund method . . . . .	407
<b>Mohanty, R. and Ray, B. K.</b> On the summability $ R, \log \omega, 1 $ of Fourier series and an associated series . . . . .	721
<b>Mohapatra, R. N., Das, G. and Srivastava, V. P.</b> On absolute summability factors of infinite series and their application to Fourier series . . . . .	107
<b>Monticelli, F.</b> A property of certain even integral functions . . . . .	139
<b>Morris, A. O.</b> A note on lemmas of Green and Kondo . . . . .	83
<b>Morton, H. R.</b> Symmetric products of the circle . . . . .	349
<b>Muley D. B. (Joint Author.)</b> Lyapunov functions and a control problem . . . . .	435
<b>Naghdi, P. M. (Joint Author.)</b> The linear theory of an elastic Cosserat plate . . . . .	537
<b>Naghdi, P. M. (Joint Author.)</b> The linear theory of an elastic Cosserat plate (Corrigenda) . . . . .	922
<b>Okikiolu, G. O.</b> On operators which depend on some parameter . . . . .	359
<b>Okikiolu, G. O.</b> On the infinitesimal generator of the Poisson operator. II. The $n$ -dimensional case . . . . .	1021
<b>Olagunju, P. A.</b> A Banach space that cannot be made into a BIP space . . . . .	949
<b>Pandsey, G. S.</b> On Riesz logarithmic summability of the ultraspherical series . . . . .	161
<b>Parashar, B. P.</b> Fourier series for $H$ -functions . . . . .	1083
<b>Paz, A. and Reichaw, M.</b> Ergodic theorems for sequences of infinite stochastic matrices . . . . .	777
<b>Penrose, R. (Joint Author.)</b> On the structure of causal spaces . . . . .	481
<b>Perfect, Hazel.</b> A theorem of Hardy, Littlewood and Pólya and some related results for infinite vectors . . . . .	1125
<b>Perfect, Hazel and Pym, J. S.</b> Addendum: An extension of Banach's mapping theorem with applications to problems concerning common representatives . . . . .	21
<b>Petersen, G. M. (Joint Author.)</b> Summability fields which span the bounded sequences . . . . .	99

## Index

vii

	PAGE
<b>Purushotham, C. M.</b> Magneto-elastic coupling effects on the propagation of harmonic waves in an electrically conducting elastic plate . . . . .	503
<b>Pym, J. S. (Joint Author.)</b> Addendum: An extension of Banach's mapping theorem with applications to problems concerning common representatives . . . . .	21
<b>Rai Lajpat (Joint Author.)</b> Stability of an elastic-viscous liquid film flowing down an inclined plane . . . . .	527
<b>Rajagopal, C. T.</b> Addendum to 'On a functional equation' . . . . .	1091
<b>Ranger, K. B.</b> Flow due to a point source of momentum in a viscous fluid contained in a sphere . . . . .	249
<b>Rathie, P. N.</b> Some finite integrals involving $F_4$ and $H$ -functions . . . . .	1077
<b>Ray, B. K. (Joint Author.)</b> On the non-absolute summability of a Fourier series and the conjugate of a Fourier series by a Nörlund method . . . . .	407
<b>Ray, B. K. (Joint Author.)</b> On the summability $ R, \log \omega, 1 $ of Fourier series and an associated series . . . . .	721
<b>Reichaw, M. (Joint Author.)</b> Ergodic theorems for sequences of infinite stochastic matrices . . . . .	777
<b>Roberts, R. S.</b> Bundles of Grassmannians and integrality theorems . . . . .	45
<b>Robertson, Ian A.</b> Diffraction of a plane longitudinal wave by a penny-shaped crack .	229
<b>Rohatgi, V. K. (Joint Author.)</b> A pair of complementary theorems on convergence rates in the law of large numbers . . . . .	73
<b>Rotkiewicz, A.</b> On the pseudoprimes of the form $ax+b$ . . . . .	389
<b>Rourke, C. P.</b> A note on complementary spines . . . . .	1
<b>Sarma, G. N.</b> A general theory of unsteady boundary-layer flows . . . . .	1309
<b>Saxena, R. K.</b> A formal solution of certain dual integral equations involving $H$ -functions	171
<b>Sayer, F. P. and Calder, C. C.</b> Plane stress theories . . . . .	1379
<b>Schwarzenberger, R. L. E.</b> The direct image of a vector-bundle . . . . .	315
<b>Schwarzenberger, R. L. E. (Joint Author.)</b> Non-embedding theorems for $Y$ -spaces .	601
<b>Segal, S. L.</b> Summability by Dirichlet convolutions . . . . .	393
<b>Seneta, E.</b> Finite approximations to infinite non-negative matrices . . . . .	983
<b>Shah, K. B.</b> Energy of a charged particle in Möller's tetrad theory . . . . .	1157
<b>Shail, R.</b> On the slow rotation of axisymmetric solids in magnetohydrodynamics .	1331
<b>Sharma, B. L. (Joint Author.)</b> Generating functions of Jacobi polynomials . . . . .	431
<b>Sharma, B. L.</b> A new generating function for Jacobi polynomials . . . . .	1041
<b>Sharma, B. L.</b> A new formula for Jacobi polynomials . . . . .	1045
<b>Slater, Noel B.</b> Gaps and steps for the sequence $n \bmod 1$ . . . . .	1115
<b>Sleeman, B. D.</b> The low frequency scalar diffraction by an elliptic disc . . . . .	1273
<b>Smith, D. Hammond.</b> The Borel structure of a hyperspace . . . . .	947
<b>Smith, M. G. and Hunt, G. E.</b> The isotropic scattering of radiation in a finite homogeneous two-dimensional atmosphere . . . . .	209

	PAGE
<b>Srivastava, H. M.</b> Generalized Neumann expansions involving hypergeometric functions	425
<b>Srivastava, H. M.</b> On a summation formula for the Appell function $F_2$	1087
<b>Srivastava, V. P. (Joint Author.)</b> On absolute summability factors of infinite series and their application to Fourier series	107
<b>Stammbach, U.</b> Ein neuer Beweis eines Satzes von Magnus.	929
<b>Stampfli, J. G.</b> An extreme point theorem for inverse in a Banach algebra with identity	993
<b>Swinnerton-Dyer, H. P. F.</b> The zeta function of a cubic surface over a finite field	55
<b>Taylor, J. G.</b> Topological degree of non-compact mappings	335
<b>Thanigasalam, K.</b> Asymptotic formula in a generalized Waring's problem	87
<b>Tikochinsky, Y.</b> An addition theorem for spherical harmonics	1093
<b>Trowbridge, E. A. (Joint Author.)</b> Elastic wave fields generated by scalar wave functions	1177
<b>Trowbridge, E. A. (Joint Author.)</b> Oscillations of a rigid sphere embedded in an infinite elastic solid. I. Torsional oscillations	1189
<b>Trowbridge, E. A. (Joint Author.)</b> Oscillations of a rigid sphere embedded in an infinite elastic solid. II. Rectilinear oscillations	1027
<b>Tupholme, G. E.</b> Generation of an axisymmetrical acoustic pulse by a deformable sphere	1285
<b>Verblunsky, S.</b> On a class of integral operators	133
<b>Verma, Arun. (Joint Author.)</b> Generalized basic hypergeometric series with unconnected bases	727
<b>Walker, P. L.</b> Lipschitz classes on 0-dimensional groups	923
<b>Wall, C. T. C.</b> Locally flat $PG$ submanifolds with codimension two	5
<b>Walmsley, Mary.</b> Convergence in lower bound formulae	451
<b>Watt, J. M.</b> The asymptotic discretization error of a class of methods for solving ordinary differential equations	461
<b>Webb, J. H.</b> Perturbation theory for a linear operator	11
<b>West, R. W.</b> A short proof of the existence of additive inverses of topological microbundles	587
<b>Whitelaw, T. A.</b> Janko's group as a collineation group in $PG(6, 11)$	663
<b>Williams, W. E.</b> Excitation of multimode surface waves	1281
<b>Wishart, David M. G. (Joint Author.)</b> Addenda to processes defined on a finite Markov chain	187
<b>Wood, G. V.</b> A generalization of the Peter-Weyl theorem	937
<b>Yacoub, A. R.</b> Complex potentials in shallow shells of revolution	413
<b>Yadav, B. S.</b> On the almost everywhere convergence of Fourier series	703
<b>Yates, D. L.</b> A theorem on perfect Singer difference sets	591
<b>Yates, D. L.</b> Another proof of a theorem on difference sets	595
<b>Zuckerman, Herbert S. (Joint Author.)</b> Singular measures with absolutely continuous convolution squares. (Corrigendum)	367
<i>Proceedings</i>	1387
<i>Statement of Accounts</i>	1391

The following papers have been accepted for publication and will appear shortly:

- RUBEL, L. A. Some uniqueness theorems for analytic functions.  
ROUSSEAU, G. Note on a problem of Porte.  
AGRAWAL, B. M. Integrals involving the products of hypergeometric functions.  
ROBERTS, J. E. Compatible uniformities and closed mappings.  
SHANBHAG, D. N. A note on the queueing system  $GI/G/\infty$ .  
JAIN, R. N. General series involving  $H$ -functions.  
RAGAB, F. M. and SIMARY, M. A. Definite integrals involving Whittaker functions.  
PURI, P. S. Some further results on the birth-and-death process and its integral.  
KNOPOFF, L., MAL, A. K. and ANG, D. D. Diffraction of elastic waves by a rigid circular disc.  
GREEN, P. Products of homotopy groups with certain prime coefficients.  
OGAWA, I. and FURUKAWA, M. The multiplicative process in semi-conductor radiation detectors.  
MICHAEL, D. H. Free surface instability in electrohydrodynamics.  
ÖLÇER, N. Y. On a heat flow problem in a hollow circular cylinder.  
CHAUDHRY, H. R. Finite extension inflation and torsion of a hollow cylindrical reinforced dielectric.  
LARMAN, D. G. On the right lower circular density of two-dimensional Jordan curves in the plane.  
SLEEMAN, B. D. Integral equations and relations for Lamé functions and ellipsoidal wave functions.  
FREMLIN, D. H. Abstract Koethe spaces, IV.  
WELSH, D. J. A. Kruskal's theorem for matrices.  
KUNG-FU, N. A representation theorem for partially ordered Banach algebras.  
URSELL, F. Creeping modes in a shadow.  
ABDELKADER, M. A. Infinite sets of identities for classical polynomials and Bessels functions.  
MAUNDER, C. R. F. Cohomology operations and duality.  
HAYMAN, W. K. A mini-gap theorem for Fourier series.  
MAREK, J. J. J. Some solutions of Einstein's equations in general relativity.  
BRANNAN, D. A. On a conjecture of Ilieff.  
BILLIGHEIMER, C. E. Solutions of a nonlinear differential equation. II.

## CONTENTS OF BIOLOGICAL REVIEWS

Vol. 42, No. 3. 1967

OBITUARY. HAROLD MUNRO FOX, 1889-1967.

C. FAVARGER. Cytologie et distribution des plantes.

R. H. WHITTAKER. Gradient analysis of vegetation.

M. H. HARDISTY. The numbers of vertebrate primordial germ cells.

J. S. ALEXANDROWICZ. Receptor organs in thoracic and abdominal muscles of Crustacea.

## C O N T E N T S

	PAGE
WALKER, P. L. Lipschitz classes on 0-dimensional groups . . . . .	923
STAMMBACH, U. Ein neuer Beweis eines Satzes von Magnus . . . . .	929
EGGLESTON, H. G. Concentrated sets . . . . .	931
MAUNDER, C. R. F. Correction to 'Mod $p$ cohomology theories and the Bockstein spectral sequence' . . . . .	935
WOOD, G. V. A generalization of the Peter-Weyl theorem . . . . .	937
SMITH, HAMMOND D. The Borel structure of a hyperspace . . . . .	947
OLAGUNJU, P. A. A Banach space that cannot be made into a BIP space . . . . .	949
FREMLIN, D. H. Abstract Köthe Spaces. II . . . . .	951
FREMLIN, D. H. Abstract Köthe Spaces. III . . . . .	957
GARLING, D. J. H. The $\beta$ - and $\gamma$ -duality of sequence spaces . . . . .	963
SENETA, E. Finite approximations to infinite non-negative matrices . . . . .	983
STAMPFLI, J. G. An extreme point theorem for inverse in a Banach algebra with identity . . . . .	993
DAVIES, ROY O. An intersection theorem of Erdős and Rado . . . . .	995
GARLING, D. J. H. On topological sequence spaces . . . . .	997
OKIKIOLU, G. O. On the infinitesimal generator of the Poisson operator. II. The $n$ -dimensional case . . . . .	1021
EVELYN, C. J. A. Relations between arithmetical functions . . . . .	1027
CORRIGENDUM . . . . .	1031
KWEE, B. On Perron's method of summation . . . . .	1033
SHARMA, B. L. A new generating function for Jacobi polynomials . . . . .	1041
SHARMA, B. L. A new formula for Jacobi polynomials . . . . .	1045
BAJPAI, S. D. Some integrals involving Gauss's hypergeometric function and Meijer's $G$ -function . . . . .	1049
LOVE, E. R. Two more hypergeometric integral equations . . . . .	1055
RATHIE, P. N. Some finite integrals involving $F_4$ and $H$ -functions . . . . .	1077
PARASHAR, B. P. Fourier series for $H$ -functions . . . . .	1083
SRIVASTAVA, H. M. On a summation formula for the Appell function $F_2$ . . . . .	1087
RAJAGOPAL, C. T. Addendum to 'On a functional equation' . . . . .	1091
TIKOCINSKY, Y. An addition theorem for spherical harmonics . . . . .	1093
ATKIN, A. O. L., BRATLEY, P., MACDONALD, I. G. and MCKAY, J. K. S. Some computations for $m$ -dimensional partitions . . . . .	1097
LARKIN, F. M. A class of methods for tabular interpolation . . . . .	1101
SLATER, NOEL B. Gaps and steps for the sequence $n\theta \bmod 1$ . . . . .	1115
PERFECT, HAZEL. A theorem of Hardy, Littlewood and Pólya and some related results for infinite vectors . . . . .	1125
MIRSKY, L. Systems of representatives with repetition . . . . .	1135
GOLDIE, CHARLES. A class of infinitely divisible random variables . . . . .	1141
JONES, D. S. High-frequency diffraction of the radiation from a nearby source . . . . .	1145
SHAH, K. B. Energy of a charged particle in Möller's tetrad theory . . . . .	1157
LAITONE, E. V. Seiches over parabolic bottoms . . . . .	1167
CHADWICK, P. and TROWBRIDGE, E. A. Elastic wave fields generated by scalar wave functions . . . . .	1177
CHADWICK, P. and TROWBRIDGE, E. A. Oscillations of a rigid sphere embedded in an infinite elastic solid. I. Torsional oscillations . . . . .	1189
CHADWICK, P. and TROWBRIDGE, E. A. Oscillations of a rigid sphere embedded in an infinite elastic solid. II. Rectilinear oscillations . . . . .	1207
BURMAN, R. Coupled wave equations for propagation in inhomogeneous compressible plasmas . . . . .	1229
GRIMSHAW, ROGER. The refraction of sound pulses . . . . .	1247
SLEEMAN, B. D. The low frequency scalar diffraction by an elliptic disc . . . . .	1273
WILLIAMS, W. E. Excitation of multimode surface waves . . . . .	1281
TUPHOLME, G. E. Generation of an axisymmetrical acoustic pulse by a deformable sphere . . . . .	1285
SARMA, G. N. A general theory of unsteady boundary-layer flows . . . . .	1309
LEIBOVICH, S. On the differential equation governing the rear stagnation point in magnetohydrodynamics and Goldstein's 'backward' boundary layers . . . . .	1327
SHAIL, R. On the slow rotation of axisymmetric solids in magnetohydrodynamics . . . . .	1331
GREGORY, R. D. An expansion theorem applicable to problems of wave propagation in an elastic half-space containing a cavity . . . . .	1341
SAYER, F. P. and CALDER, C. C. Plane stress theories . . . . .	1369
KEER, L. M. Mixed boundary-value problems for an elastic half-space . . . . .	1379
PROCEEDINGS . . . . .	1387
STATEMENT OF ACCOUNTS . . . . .	1391

*Printed in Great Britain at the University Printing House, Cambridge*