

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

RAMAKRISHNAN, A. A note on Jánosy's mathematical model of a nucleon cascade.

JAMES, G. S. Notes on a theorem of Cochran.

STOCKER, P. M. The transients arising from the addition of heat to a gas flow.

BALDOCK, G. R. Electronic bound states at the surface of a metal.

ROSE, A. Some generalized Sheffer functions.

HAYES, C. A. Differentiation of some classes of set functions.

HARTLEY, H. O. Tables for numerical integration at non-equidistant argument steps.

CHALK, J. H. H. The minimum of a non-homogeneous binary cubic form.

JEFFREYS, B. The classification of multipole radiation.

ROOM, T. G. Transformations depending on sets of associated points.

RUSHFORTH, J. M. Congruence properties of the partition function and associated functions.

HURST, C. A. An example of a divergent perturbation expansion in field theory.

COX, D. R. A note on the sequential estimation of means.

MISHRA, B. Wave functions for excited states of mercury and potassium.

WORSLEY, B. H. On the second-order correction terms to values of gravity measured at sea.

SWINNERTON-DYER, H. P. F. A solution of  $A^5 + B^5 + C^5 = D^5 + E^5 + F^5$ .



# CONTENTS

	PAGE
BESICOVITCH, A. S. and TAYLOR, S. J. On the set of distances between points of a general metric space . . . . .	209
DAVIES, R. O. On accessibility of plane sets and differentiation of functions of two real variables . . . . .	215
ROTH, L. Some threefolds on which adjunction terminates . . . . .	233
MILLER, J. C. P. A method for the determination of converging factors, applied to the asymptotic expansions for the parabolic cylinder functions . . . . .	243
BROOKER, R. A. The solution of algebraic equations on the EDSAC . . . . .	255
PERFECT, HAZEL. On positive stochastic matrices with real characteristic roots . . . . .	271
LINDLEY, D. V. The theory of queues with a single server . . . . .	277
COX, D. R. Sequential tests for composite hypotheses . . . . .	290
CHISHOLM, J. S. R. Calculation of $S$ -matrix elements . . . . .	300
NABARRO, F. R. N. and VARLEY, J. H. O. The stability of hexagonal lattices with a simple law of force . . . . .	316
MOYAL, J. E. The spectra of turbulence in a compressible fluid; eddy turbulence and random noise . . . . .	329
BATCHELOR, G. K. Diffusion in a field of homogeneous turbulence. II. The relative motion of particles . . . . .	345
RESEARCH NOTES:	
BAKER, H. F. Note on the foundations of projective geometry . . . . .	363
KANAGASABAPATHY, P. Note on Diophantine approximation . . . . .	365
NORTHCOTT, D. G. A note on the intersection theorem for ideals . . . . .	366
CORRIGENDA:	
CASSELS, J. W. S. A theorem of Vinogradoff on uniform distribution . . . . .	368
GOOD, I. J. Random motion on a finite Abelian group . . . . .	368

*Printed in Great Britain at the University Press, Cambridge  
(Brooke Crutchley, University Printer)*