

PROCEEDINGS OF SYMPOSIA IN APPLIED MATHEMATICS, VOLUME X

COMBINATORIAL ANALYSIS

Edited by Richard Bellman and Marshall Hall, Jr.

Problems involving the choice of a specified set of objects from a finite set of objects are usually called "combinatorial". Although there is seldom any theoretical difficulty concerning the existence of the desired subset, there is almost always an enormous amount of difficulty connected with the actual determination of this subset.

Questions of this type arise in all parts of mathematics, in algebra, geometry and analysis. In general, any advance in procedures requires a major theoretical advance. Quite often, the physical background of the mathematical problem suggests a new mathematical approach to a longstanding problem.

This volume contains a variety of papers devoted to combinatorial problems arising in the mathematical areas cited above, and in the new fields of scheduling, transportation, communication and design of experiments. A number of papers are devoted to the use of digital computers to attack the complicated problems which arise from apparently simple physical problems.

Not only will this volume furnish a valuable survey of the current state of the art, but it will also provide a source for research in this vast and growing field.

311 pages

25% discount to members

\$7.70

AMERICAN MATHEMATICAL SOCIETY

190 Hope Street, Providence 6, Rhode Island

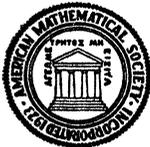
MATHEMATICAL REVIEWS

A Journal Containing Reviews of the Mathematical Literature of the World, with full Subject and Author Indices

Subscriptions accepted to cover the calendar year only. Issues appear monthly except July. \$50.00 per year. \$25.00 to members of sponsoring organizations. An edition printed on one side, for bibliographical purposes, is available at an additional charge of \$1.00 per year. Unesco Book Coupons may be used in payment.

Sponsored by

*The American Mathematical Society
The Mathematical Association of America
The Society for Industrial and Applied Mathematics
The Institute of Mathematical Statistics
The Edinburgh Mathematical Society
Société Mathématique de France
Dansk Matematisk Forening
Het Wiskundig Genootschap te Amsterdam
The London Mathematical Society
Polskie Towarzystwo Matematyczne
Unión Matemática Argentina
Indian Mathematical Society
Unione Matematica Italiana*



Send subscription orders to

AMERICAN MATHEMATICAL SOCIETY
190 Hope Street, Providence 6, R. I.

CONTENTS

Vol. 4, No. 3

September, 1960

	Page
Markoff chains and Martin boundaries By G. A. HUNT.	313
The p -period of a finite group By RICHARD G. SWAN.	341
Homology operations and loop spaces By WILLIAM BROWDER.	347
On Albanese varieties By SHOJI KOIZUMI.	358
On the density of sets of integers possessing additive bases By BASIL GORDON and L. A. RUBEL.	367
A dimension theorem for sample functions of stable processes By R. M. BLUMENTHAL and R. K. GETOOR.	370
Structure of cleft rings II By JOHN H. WALTER.	376
The dual of a secondary cohomology operation By F. P. PETERSON and N. STEIN.	397
On the global structure of the trajectories of a positive quadratic differential By JAMES A. JENKINS.	405
On a spectrum of set theories By AZRIEL LÉVY.	413
Quotient fields of residue class rings of function rings By LEONARD GILLMAN and MEYER JERISON.	425
Category and generalized Hopf invariants By I. BERSTEIN and P. J. HILTON.	437
Functions whose partial derivatives are measures By WENDELL H. FLEMING.	452

Published by the University of Illinois Press in March, June, September, and December. Supported in part by the George A. Miller Endowment. Printed by Waverly Press, Baltimore, Maryland.

The subscription price is \$9.00 a volume (four numbers); this is reduced to \$5.00 for individual members of the American Mathematical Society. The price of a single number is \$3.00. Subscriptions should be sent to the University of Illinois Press, Urbana, Illinois.