Proceedings of Symposia in Pure Mathematics

Representation Theory of Finite Groups and Related Topics

Edited by Irving Reiner

PROCEEDINGS OF SYMPOSIA IN PURE MATHEMATICS, VOLUME XXI
184 pages; List Price $11.70; Member Price $8.78

This volume constitutes the proceedings of a symposium on Representation Theory of Finite Groups and Related Topics which was held in Madison, Wisconsin, April 14-16, 1970, in conjunction with a sectional meeting of the American Mathematical Society. The symposium was held in honor of Professor Richard Brauer whose fundamental work in representation theory lies at the heart of most of the further developments in this topic. These proceedings contain articles by the participants, based on their symposium lectures. The articles range from brief surveys of results to detailed outlines of proofs, and are intended to indicate the scope of current research in representation theory. Professor Irving Reiner of the University of Illinois, Urbana, was chairman of the Organizing Committee and editor of these proceedings.

Algebraic Topology

Edited by Arunas Liulevicius

PROCEEDINGS OF SYMPOSIA IN PURE MATHEMATICS, VOLUME XXII
290 pages; List Price $17.80; Member Price $13.35

This volume constitutes the proceedings of the seventeenth summer research institute of the American Mathematical Society, held at the University of Wisconsin, Madison, from June 29 to July 17, 1970. The program of the institute was divided into four parts: (1) survey talks on recent developments in the field of algebraic topology; (2) invited one-hour talks on important recent work; (3) sessions on problems; and (4) seminars organized by the participants. Appearing in this volume are the lecture notes of the survey talks presented by J. Frank Adams, Edgar H. Brown, Jr., Samuel Gitler, Richard K. Lashof, Franklin P. Peterson, Larry Smith, and James D. Stasheff. The remainder of the volume consists of the texts of the invited one-hour talks and a list of research problems. The list of research problems was edited by R. James Milgram.

Something new has been

The Audio Recordings of Mathematical Lectures are recordings of lectures presented at meetings of the American Mathematical Society: Gibbs Lectures, Colloqium Lectures, and invited hour addresses. These audio recordings are now being prepared on cassettes as well as tapes. Each lecture is accompanied by a manual which contains displays referred to in the lecture, and the recordings contain editorial comments referring the listener to these displays.

The lectures are recorded on tape at a speed of 1⅞"/second (4.75cm/second) and can be played on standard tape recorders; tapes run at 3¾"/second (9.5cm/second) are available if requested. Cassettes and tapes may be purchased at $6.00 each for hour addresses and $10.00 for Colloquium Lectures. Additional copies of

American Mathematical Society

SIAM - AMS Proceedings

Mathematical Aspects of Electrical Network Analysis

Edited by Herbert S. Wilf and Frank Harary

SIAM-AMS PROCEEDINGS, VOLUME III
214 pages; List Price $10.60; Member Price $7.95

This volume constitutes the proceedings of the SIAM-AMS symposium on Mathematical Aspects of Electrical Network Analysis held in New York City in April 1969. Most of the papers apply various mathematical methods to electrical network problems, but a few of them accomplish the reverse "application," and help to solve purely mathematical problems using electrical network theory technique. The authors include R. K. Brayton, R. W. Brockett, D. A. Calahan, Shu-Park Chan, R. J. Duffin, R. J. Leake, R. Liu, Ronald Rohrer, J. Paul Roth, R. Saeks, I. W. Sandberg, R. A. Skoog, Pravin Varaiya, Dan H. Wolaver, Dante C. Youla, and J. W. T. Youngs.

Computers in Algebra and Number Theory

Edited by Garrett Birkhoff and Marshall Hall, Jr.

SIAM-AMS PROCEEDINGS, VOLUME IV
208 pages; List Price $12.70; Member Price $9.53

This volume constitutes the proceedings of the SIAM-AMS symposium on Computers in Algebra and Number Theory held in New York City in March 1970. Part 1 consists of papers devoted to applications of algebraic ideas to computing with especial attention to problems of optimizing computer algorithms. The five papers in Part 2 consider number theory and combinatorial theory. The final section, Part 3, deals with the application of computers to finite groups. The authors include L. D. Baumert et al., B. J. Birch, Garrett Birkhoff, John J. Cannon, J. H. Conway, Marshall Hall, Jr., M. D. Hestenes, D. G. Higman, John Mckay, J. Neubüser, Charles C. Sims, H. P. F. Swinnerton-Dyer, J. H. van Lint, Shmuel Winograd, and Hans Zassenhaus.

added: cassettes

the manual may be ordered for $0.30 each. At the present time forty-six lectures are available, including three Colloquium Series. Lecturers include Masani, Treves, Boone, Fadell, Bott, Harish-Chandra, Kirby, Baum, Tate, Bass, Feferman, Friedman, Shah, Rosenblum, Heerema, Shult, Hirsch, McMillan, Glimm, Auslander, Atiyah, Kohn, McLaughlin, Mahler, Rubel, Curtis, Blackwell, Gangolli, Billingsley, Ax, Varga, Hofmann, Bing, Hemmingsen, Ornstein, Gorenstein, Kesten, Zariski, Hopf, Nachbin, Ellis, Sullivan, O'Meara, Blattner, Fan and Knopp. For additional information, or to place an order, please write to the Promotion Department, American Mathematical Society, P. O. Box 6248, Providence, Rhode Island 02904.

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ON THE COMPUTATION OF SOME GRUNSKY COEFFICIENTS

RELEVANT TO THE BIEBERBACH CONJECTURE

GEORGE G. ROSS

APPENDIX

In the following table, the entries beneath the a_i represent exponents of a_i in a term of C_{ij} with coefficient appearing in a column to the right under the appropriate C_{ij} heading. For example, $C_{33} = \frac{1}{2}a_4 - a_2 a_3 + \frac{13}{24}a_2{}^3$.

a_2	a_3	a_4	a_5	a_6	a_7	a_8	a_9	a_{10}	a_{11}						
1	-	-	-	-	-	-	-	-	-	C_{11}	1/2				
-	1	-	-	-	-	-	-	-	-	C_{13}	1/2				
2	-	-	-	-	-	-	-	-	-		-3/8				
-	-	1	-	-	-	-	-	-	-	C_{33}	1/2	C_{15}	1/2		
1	1	-	-	-	-	-	-	-	-		-1		-1		
3	-	-	-	-	-	-	-	-	-		13/24		5/15		
-	-	-	1	-	-	-	-	-	-	C_{35}	1/2	C_{17}	1/2		
-	2	-	-	-	-	-	-	-	-		-5/8		-3/8		
1	-	1	-	-	-	-	-	-	-		-1		-3/4		
2	1	-	-	-	-	-	-	-	-		29/16		15/16		
4	-	-	-	-	-	-	-	-	-		-85/128		-35/128		
-	-	-	-	1	-	-	-	-	-	C_{55}	1/2	C_{37}	1/2	C_{19}	1/2
-	1	1	-	-	-	-	-	-	-		-3/2		-5/4		-3/4
1	-	-	1	-	-	-	-	-	-		-1		-1		-3/4
1	2	-	-	-	-	-	-	-	-		21/8		2		15/16
2	-	1	-	-	-	-	-	-	-		2		29/16		15/16
3	1	-	-	-	-	-	-	-	-		-59/16		-45/16		-35/32
5	-	-	-	-	-	-	-	-	-		689/640		49/64		63/256
-	-	-	-	-	1	-	-	-	-	C_{57}	1/2	C_{39}	1/2	C_{11}	1/2
-	-	2	-	-	-	-	-	-	-		-7/8		-5/8		-3/8
-	1	-	1	-	-	-	-	-	-		-3/2		-5/4		-3/4
-	3	-	-	-	-	-	-	-	-		9/8		35/48		5/16
1	-	-	-	1	-	-	-	-	-		-1		-1		-3/4
1	1	1	-	-	-	-	-	-	-		45/8		4		15/8
2	-	-	1	-	-	-	-	-	-		2		29/16		15/16
2	2	-	-	-	-	-	-	-	-		-225/32		-285/64		-105/64
3	-	1	-	-	-	-	-	-	-		-123/32		-45/16		-35/32
4	1	-	-	-	-	-	-	-	-		839/128		1015/256		315/256
6	-	-	-	-	-	-	-	-	-		-791/512		-875/1024		-231/1024