THE SUMMER MEETING IN KALAMAZOO

The seventy-ninth summer meeting of the American Mathematical Society was held at Western Michigan University, Kalamazoo, Michigan, from Monday, August 18, through Friday, August 22, 1975. The meeting was preceded by a Short Course on Applied Combinatorics, held on August 16 and 17.

There were two sets of Colloquium Lectures. Professor Ellis R. Kolchin of Columbia University gave one set of Colloquium Lectures on the subject *Differential algebraic groups*; the presiding officers at his four lectures were Lipman Bers, Irving Reiner, Andy R. Magid and Peter J. Weinberger. The other set of Colloquium Lectures was given by Professor Elias M. Stein of Princeton University; his subject was *Singular integrals, old and new* and he was introduced at his four lectures by Lipman Bers, Allen L. Shields, William Beckner and Daniel Waterman.

By invitation of the Committee to Select Hour Speakers for Annual and Summer Meetings there were seven invited one-hour addresses. The speakers and their titles were as follows: Roy L. Adler, IBM T. J. Watson Research Center, *Ergodic properties of elementary mappings of the unit interval*; Everett C. Dade, University of Illinois, *Nearly trivial outer automorphisms of finite groups*; Bernard Maskit, State University of New York at Stony Brook, *On the classification of Kleinian groups*; David Mumford, Harvard University, *Algebraic cycles on algebraic varieties*; Jack H. Silver, University of California, Berkeley, *The singular cardinals problem*; James D. Stasheff, Temple University, *The continuous cohomology of groups and classifying spaces*; Wilhelm F. Stoll, University of Notre Dame, *Aspects of value distribution theory in several complex variables*. The presiding officers at these seven hour talks were Joseph E. Adney, Jr., Lipman Bers, Ralph M. Krause, Don R. Lick, Franklin P. Peterson, Robert D. Speiser and B. Alan Taylor.

Two LeRoy P. Steele Prizes and the Norbert Wiener Prize in Applied Mathematics were awarded at a session which preceded the Business Meeting. Professor H. Blaine Lawson, Jr. of the University of California, Berkeley, received a Steele Prize for his paper *Foliations* [Bull. Amer. Math. Soc. **80** (1974), pp. 369–418]. Professor George W. Mackey of Harvard University received a Steele Prize for his paper *Ergodic theory and its significance for statistical mechanics and probability theory* [Advances in Math. **12** (1974), pp. 178–286]. Professor Peter D. Lax of the Courant Institute of Mathematical Sciences received the Norbert Wiener Prize for his broad contributions to applied mathematics, in particular, for his work on numerical and theoretical aspects of partial differential equations and on scattering theory.

There were fourteen sessions of selected twenty-minute papers. Janos D.

Aczel of the University of Waterloo organized a special session on Functional Equations; the speakers were Janos D. Aczel, John A. Baker, Mary K. Bennett, Francis W. Carroll, Thomas M. K. Davison, George T. Diderrich, Jr., Graeme Fairweather, Maurice J. Frank, Jr., Michael A. Golberg, Konrad John Heuvers, T. D. Howroyd, Ih-Ching Hsu, Ignacy I. Kotlarski, J. A. Lester, M. H. McKiernan, C. T. Ng, Thomas A. O'Connor, Frank J. Papp, Ludwig Reich, John V. Ryff, Berthold Schweitzer, Kermit N. Sigmon, Abe Sklar, Donald R. Snow, M. A. Taylor and David Zupnik. Amassa C. Fauntleroy of the University of Illinois and Andy R. Magid of the University of Oklahoma organized a special session on Affine Algebraic Groups; the speakers were Melvin Hochster, T. Kambayashi, Andy R. Magid, Robert A. Morris, Takashi Ono, Brian J. Parshall, Joel L. Roberts, Michael R. Stein, and Ferdinand D. Veldkamp. George Fix of the University of Michigan organized a special session on Scientific Computing; the speakers were John Barnes, Alvin Bayliss, Julio Cesar Diaz, George Fix, Peter Henrici, Stephen H. Leventhal, William R. Martin and Dianne M. Prost O'Leary. Casper Goffman of Purdue University organized a special session on Aspects of Real Analysis; the speakers were Richard J. Fleissner, Kim E. Michener, Togo Nishiura, Richard J. O'Malley, Daniel Waterman, Clifford E. Weil and Robert E. Zink. W. Charles Holland of Bowling Green State University organized a special session on Ordered Groups; the speakers were Richard N. Ball, W. Russell Belding, Paul F. Conrad, Andrew M. W. Glass, Herbert A. Hollister, Justin T. Lloyd, Jorge Martinez, Roberto A. Mena, Joe L. Mott, Norman R. Reilly, A. H. Rhemtulla, Motupalli Satyanarayan, Stuart A. Steinberg and J. Roger Teller. Robert E. Huff and Peter D. Morris of Pennsylvania State University organized a special session on Banach Spaces with the Radon-Nikodym Property; the speakers were James B. Collier, William J. Davis, Joseph Diestel, Michael Edelstein, Gerald A. Edgar, Heinrich P. Lotz, Peter D. Morris, Terry J. Morrison, Billy J. Pettis, Robert R. Phelps, Haskell P. Rosenthal, Elias Saab, Francis Sullivan and J. Jerry Uhl, Jr. Paul C. Kainen of Case Western Reserve University organized a special session on Topological and Chromatic Graph Theory; the speakers were Michael O. Albertson, Seth R. Alpert, Ruth A. Bari, Frank R. Bernhart, Jonathan L. Gross, Gary M. Haggard, Pavol Hell, Daniel J. Kleitman, Roy B. Levow, Edward A. Nordhaus, Richard D. Ringeisen, Allen J. Schwenk, Saul Stahl, Arthur T. White II, and Herbert S. Wilf. Leroy M. Kelly of Michigan State University organized a special session on Geometry of Metric Spaces; the speakers were J. Ralph Alexander, Jr., David C. Kay, Leroy M. Kelly, William A. Kirk, Anthony G. O'Farrell, Clinton M. Petty, Kenneth B. Stolarsky and Hans S. Witsenhausen. Pierre J. Malraison, Jr. of Carleton College organized a special session on Categorical Methods in Algebraic Topology; the speakers were John M. Boardman, Martin Fuchs, Dana May Latch, Pierre J. Malraison, Jr. (speaking on a paper of Jonathan M. Beck), Marvin V. Mielke and R. Neil Vance. Tilla K. Milnor of Rutgers University organized a special session on Riemannian Geometry; the speakers were Stephanie B. Alexander, Bang-yen Chen,

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Chang Shing Chen, Joseph E. D'Atri, Harold G. Donnelly, Patrick B. Eberlein, Peter B. Gilkey, Herman R. Gluck, Mikhael Gromov, Ravindra S. Kulkarni, Dominic S. P. Leung, David A. Singer, Ann K. Stehney, James R. Wason, and Edward N. Wilson. David E. Muller of the University of Illinois organized a special session on Theoretical Computer Science; the speakers were Chung Laung Liu, Franco P. Preparata and Shmuel Winograd. Peter J. Nyikos of the University of Illinois organized a special session on General Topology; the speakers were Charles E. Aull, Paul J. Bankston, Raymond F. Dickman, Jr., Gary F. Gruenhage, Charles L. Hagopian, Robert W. Heath, M. Jayachandran, Ronnie Fred Levy, Stanislaw G. Mrowka, Louis F. McAuley, George M. Reed, Mary Ellen Rudin, James C. Smith, Jr., Franklin D. Tall, Eric K. van Douwen, Jerry E. Vaughan, Henry E. White, Jr., Howard H. Wicke, Scott W. Williams and Philip L. Zenor. Hans Schneider of the University of Wisconsin organized a special session on Numerical Ranges for Matrices and Other Operators on Normed Spaces; the speakers were Joel H. Anderson, Charles S. Ballantine, Earl R. Berkson, Moshe Goldberg, James E. Jamison, Charles R. Johnson, Marvin Marcus, Heydar Radjavi, B. David Saunders and Joseph G. Stampfli. Peter J. Weinberger of the University of Michigan organized a special session on Efficient Algorithms for Exact Computation; the speakers were Dan J. Hoey, Gary L. Miller and Andrew C. Yao.

There were 21 sessions for contributed ten-minute papers. Of the 101 papers scheduled for these sessions, 17 were withdrawn; 4 late papers were added to the program, so that 88 contributed papers were actually presented. The presiding officers for the 21 sessions were J. Ralph Alexander, Stephanie B. Alexander, Richard A. Askey, Earl R. Berkson, Anne W. Calloway, A. Bruce Clarke, William J. Davis, James A. Donaldson, Donald L. Goldsmith, Eugene Isaacson, David E. Muller, Edgar M. Palmer, Barth Pollak, B. David Saunders, Chung-tuo Shih, Harvey A. Smith, Lee M. Sonneborn, J. Jerry Uhl, Jr., Gordon L. Walker, Clifford E. Weil and Henry E. White, Jr.

The Council met on August 19, 1975 at 5:00 P.M. in the Dean's Conference Room of Friedmann Hall. President Bers was in the chair.

An invitation to Professor Herbert Federer to give the Colloquium Lectures of January 1977 in St. Louis was approved.

An invitation to Professor A. S. Wightman to deliver the Gibbs Lecture of January 1976 in San Antonio was approved.

The Council established several changes in the mode of conduct of Society business. They approved a one year trial of the selection of members of the Nominating Committee by a preferential ballot of the membership, with the possibility of nomination of candidates by petition. They approved a standing Committee on Committees, advisory to the President on appointments and to the President and the Council on the function of committees. They approved the delegation of additional classes of duties to the Executive Committee. Finally, they established a Program Committee, replacing the current Committee to Select Hour Speakers for Summer and Annual

Meetings. In making these changes, the Council was following the recommendations of an ad hoc Committee on Committees, which has not yet completed its work.

The Council invited the President to address a letter dealing with current employment prospects in mathematics to the head of every Ph.D. producing mathematics department in the United States.

The Council nominated candidates to various offices of the Society. These nominations supplement the nominations for positions of Vice-President and Member-at-Large already reported (this Bulletin, **81**, 1058). The candidates are

President Elect	R. H. Bing
Associate Secretary	Paul T. Bateman
(two positions)	Kenneth A. Ross

Editorial Committees

Bulletin	Olga Taussky
Colloquium Publications	Samuel Eilenberg
Mathematical Surveys	Maxwell A. Rosenlicht
Mathematical Reviews	Jacob T. Schwartz
Mathematics of Computation	John W. Wrench, Jr.
Proceedings	Thomas A. Chapman
	Richard R. Goldberg
	Joseph A. Wolf
Transactions and Memoirs	Solomon Feferman
	Robert T. Seeley
Committee to Monitor	Cărl M. Pearcy
Problems in Communication	Duane W. Bailey
Trustee	Cathleen S. Morawetz

The Council noted that the following candidates had been nominated by petition for the named offices:

Vice-President	Mary Gray
Member-at-Large	Ed L. Dubinsky
	Harriet M. Lord
	Lee A. Rubel
	Daniel Waterman

The Council had recessed for dinner during the meeting and adjourned at 12:40 A.M.

The Business Meeting was held on August 21, 1975 at 4:00 P.M. in the Miller Auditorium. President Bers was in the chair. He was assisted by a parliamentarian, Professor Thomas L. Gossman, an attorney from the faculty of Western Michigan University; a timekeeper, Professor Barbara Osofsky; two tellers, Professors Ih-Ching Hsu and Donald J. McCarthy.

The President noted with sorrow the recent death of Lillian R. Casey, Head of the Meeting Arrangements Section of the Providence office of the Society.

The Secretary reported on some actions of the Council from the meeting of April 11, 1975, subsequently detailed in this Bulletin (**81,** 1055–1059), and on some actions from the meeting of April 11, 1975, noted above.

The Business Meeting followed a recommendation of the Council in amending Article XI, Section 2 of the Bylaws. The last sentence, which did read "The editorial management of the *Notices* shall be in the hands of a committee consisting of the executive director and the secretary," was changed at the end to read ". . . a committee chosen in a manner established by the Council."

The Business Meeting turned to the consideration *seriatim* of three resolutions that had been placed on the agenda by the Business Meeting of January 24, 1975.

The text of Motion I as originally introduced (this Bulletin, **81,** 826) was immediately amended by unanimous consent, with changes in preamble only, so that it took the following form:

> The rapidly growing unemployment (from which mathematicians are not exempt) and the ominous nature of massive budget cuts for education and other social services, coupled with the Presidential request for an increase in an already wastefully huge military budget, bring into sharp focus the determining effect that government spending priorities have on the lives of people.
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> In the face of the ever deepening economic crisis it is the sense of this meeting that the federal government must:
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> 1. fund a national open admissions program at institutions of higher education;
> 2. fund a massive public works program (paying decent wages) which will use the skills of the presently and soon-to-be unemployed (including mathematicians) for sorely needed socially useful tasks;
> 3. transfer massive funds from the military budget to accomplish these aims.
>
> We call on the officers of the Society to work towards effecting the implementation of the above.

Professor R. D. Anderson objected to consideration of the question, stating that he was doing so because it was the form of motion that allowed the Business Meeting to decide whether it wished in fact to consider the question. There were 69 votes to consider and 81 not to consider, the latter not being the requisite two-thirds.

After extended debate the motion as amended was defeated, with 33 votes in favor and 111 opposed.

The text of Motion II as originally introduced (this Bulletin, **81,** 827) was replaced by unanimous consent with the following substitute:

> This Business Meeting of the American Mathematical Society deplores the action of the United Nations Educational, Scientific

and Cultural Organization in excluding Israel from participation in many of its activities and in withholding from Israel the assistance it gives to other member nations. The Business Meeting calls upon its President to communicate its condemnation of these actions to other scientific societies, to the U.S. administration and Congress, and to U.N.E.S.C.O. This meeting requests its President to recommend to the Council of the AMS further specific actions the Society might undertake in order to protest the positions and actions of U.N.E.S.C.O. in this matter.

After debate, the motion was passed without a count of the vote.

Motion III as introduced in January 1975 had the following text:

That the officers of the Society be requested to arrange that an early meeting of the Society schedule an open session intended to discuss the possible establishment of an independent Association of Mathematicians for Social Action.

After limited debate, a motion was passed to refer the motion to the committee on Principles and Procedures. The vote was 61 in favor and 52 opposed.

Professor Gerald J. Porter introduced a procedural resolution that a motion with the following text be placed on the agenda of the Business Meeting of January 1976.

This meeting of the AMS deplores the actions taken by the government of the Soviet Union in depriving those mathematicians who have applied to emigrate from the USSR of their positions within the mathematical community of the USSR. We urge the Soviet government to grant them exit visas and to allow them to function as mathematicians until their visas are granted.

We request the President of the AMS to communicate our position on this matter to appropriate Soviet and American officials and to make appeals on behalf of individual Soviet mathematicians who are thus affected.

The procedural motion was passed with 74 votes in favor and 21 opposed.

Professor Peter Lax moved that all motions approved at a Business Meeting of the Society be submitted for ratification by the membership by mail ballot before becoming effective. Professor Lee Lorch proposed an amendment, replacing "approved" by "voted upon". Before the vote on the amendment, the entire question was referred to the Committee on Principles and Procedures.

The meeting adjourned at 5:50 P.M.

BETHLEHEM, PENNSYLVANIA

EVERETT PITCHER
Secretary

URBANA, ILLINOIS

PAUL T. BATEMAN
Associate Secretary