

## THE ANNUAL MEETING IN SAN FRANCISCO

The eightieth annual meeting of the American Mathematical Society was held at the San Francisco Hilton Hotel in San Francisco, California, from Tuesday, January 15, through Friday, January 18, 1974. There were 3337 registrants, including 2533 members of the Society. The meeting was held in conjunction with the annual meeting of the Mathematical Association of America (January 17-19).

There were two sets of Colloquium Lectures, each consisting of four one-hour talks. Professor Louis Nirenberg of the Courant Institute of Mathematical Sciences, New York University, presented a series of Colloquium Lectures entitled *Selected topics in partial differential equations*. He was introduced at his four lectures by Professors Saunders Mac Lane, Murray H. Protter, Lamberto Cesari, and Charles B. Morrey, Jr. The other series of Colloquium Lectures was given by Professor John G. Thompson of the University of Cambridge. The title of his lectures was *Finite simple groups*. Professor Thompson was introduced by Professors Saunders Mac Lane, Nathan Jacobson, Walter Feit, and Marshall Hall, Jr.

Professor Nathan Jacobson of Yale University gave his Retiring Presidential Address on Wednesday, January 16, 1974. The title of his address was *Some groups and Lie algebras defined by Jordan algebras*. Professor Saunders Mac Lane introduced Professor Jacobson at his lecture.

The forty-seventh Josiah Willard Gibbs Lecture, *Economics and mathematical analysis*, was presented by Professor Paul A. Samuelson of the Massachusetts Institute of Technology on Tuesday, January 15, 1974. Professor Samuelson was introduced by Professor Saunders Mac Lane.

The Bôcher Memorial Prize in analysis was awarded to Professor Donald S. Ornstein of Stanford University on Wednesday, January 16. The prize was given in recognition of his paper entitled *Bernoulli shifts with the same entropy are isomorphic*, which was published in *Advances in Mathematics* 4 (1970), 337-352.

By invitation of the Committee to Select Hour Speakers for Annual and Summer Meetings, there were eight invited hour addresses. Professor Elwyn R. Berlekamp of the University of California, Berkeley, lectured on *Combinatorial game theory*; he was introduced by Professor William F. Lucas. Professor Richard J. Duffin of Carnegie-Mellon University spoke on *Some problems of mathematics and science*; he was introduced by Professor Raoul H. Bott. Professor Adriano M. Garsia of the University of California, San Diego, lectured on *Combinatorial inequalities and smoothness of functions*; he was introduced by Professor Guido L. Weiss. Professor Shoshichi Kobayashi of the University of California, Berkeley, gave an address entitled *Intrinsic distances, measures and geometric function theory*; he was introduced by Professor Shing S. Chern. Professor Barry M. Mitchell of Rutgers University spoke on *Some applications of*

*module theory to functor categories*; he was introduced by Professor Myles Tierney. Professor Dijen K. Ray-Chaudhuri of Ohio State University lectured on *Some recent developments in combinatorics*; he was introduced by Professor Ronald L. Graham. Professor Louis Solomon of the University of Wisconsin, Madison, gave a lecture on *Representations of finite Chevalley groups*; he was introduced by Professor Charles W. Curtis. Professor Alan D. Weinstein of the University of California, Berkeley, spoke on *Lagrangian submanifolds*; he was introduced by Professor Morris W. Hirsch.

There were several special sessions of selected papers. Professor Frank W. Anderson of the University of Oregon organized two special sessions on Ring Theory. The speakers were Victor P. Camillo, John H. Cozzens, Robert S. Cunningham, Carl Faith, Timothy V. Fossum, Melvin Henriksen, S. K. Jain, Bruno J. W. Mueller, Stanley S. Page, Richard S. Pierce, Claudio Procesi, and Surjeet Singh.

Professor Lipman Bers of Columbia University organized two special sessions entitled Crash Course on Kleinian Groups. The speakers were William Abikoff, Lipman Bers, Clifford J. Earle, Jr., Frederick P. Gardiner, Irwin Kra, Albert Marden, Bernard Maskit, Howard A. Masur, and Halsey L. Royden.

Professor Lamberto Cesari of the University of Michigan and Professor Jack K. Hale of Brown University organized two special sessions on Functional Analysis Methods in Nonlinear Differential Equations, Ordinary and Partial. The speakers were Henry A. Antosiewicz, Melvyn S. Berger, Lamberto Cesari, Constantin Corduneanu, Robert T. Glassey, Jack K. Hale, William S. Hall, Rangachary Kannan, Alan C. Lazer, John A. Nohel, David A. Sanchez, Duane P. Sather, David H. Sattinger, Howard C. Shaw, Arnold P. Stokes, Daniel Sweet, and Robert E. L. Turner.

Professor Laszlo Fuchs of Tulane University organized two special sessions on Abelian Groups. Talks were given by David M. Arnold, Chang M. Bang, Ross A. Beaumont, Khalid Benabdallah, Peter Crawley, Laszlo Fuchs, Jutta Hausen, Paul D. Hill, John M. Irwin, Everett L. Lady, Charles K. Megibben, Ray Mines, J. Douglas Moore, Ronald J. Nunke, James D. Reid, Fred Richman, Elias H. Toubassi, Carol Lee Walker, Elbert A. Walker, and Robert B. Warfield, Jr.

Professor Leslie C. Glaser of the University of Utah organized two special sessions on Geometrical Topology. The list of speakers included B. J. Ball, Marshall M. Cohen, Robert J. Daverman, Paul F. Duvall, Jr., William T. Eaton, Robert D. Edwards, George K. Francis, Joan P. Hutchinson, Kenneth C. Millett, T. Benny Rushing, Richard M. Schori, Richard B. Sher, and David C. Wilson.

Professor Ray A. Kunze of the University of California, Irvine, organized three special sessions on Non-Abelian Harmonic Analysis. The list of speakers included Louis Auslander, Jonathan P. Brezin, Ronald R. Coifman, Stephen S. Gelbart, Roe W. Goodman, Kenneth I. Gross, I. I. Hirschman, Jr., Kenneth D. Johnson, Aroldo Kaplan, J. Edward Kerlin, Adam Kleppner, Adam Koranyi, Bertram Kostant, Ronald L. Lipsman, Robert P. Martin, A. Edward Nussbaum, Hugo Rossi, L. Preiss Rothschild, Paul J. Sally, Jr., Elias M. Stein, Ernest A. Thieleker, Peter C. Trombi, Nolan R. Wallach, Guido L. Weiss, Norman J. Weiss, and Joseph A. Wolf.

Professor William J. LeVeque of Claremont Graduate School organized two special sessions on Distribution Modulo 1 and Random Number Generation. The speakers were William F. Eberlein, Janos Galambos, Harald G. Niederreiter, Charles F. Osgood, Walter Philipp, Murray Rosenblatt, Wolfgang M. Schmidt, William A. Veech, and Stanislaw Zaremba.

Professor P. S. Mostert of the University of Kansas and Professor Alfred H. Clifford of Tulane University organized special sessions on Topological Semigroups and Algebraic Semigroups, respectively. The following participated in the Topological Semigroups session: James H. Carruth, Charles F. Dunkl, J. G. Horne, Jr., Larry King, Jimmie D. Lawson, Michael W. Mislove, Donald E. Ramirez, and Albert R. Stralka. Speakers at the Algebraic Semigroups sessions included Pierre A. Grillet, Gerard J. Lallement, Jonathan E. Leech, Donald B. McAlister, Kenneth D. Magill, Jr., William R. Nico, Mario Petrich, Mohan S. Putcha, John Rhodes, Herman E. Scheiblich, Takayuki Tamura, and Bret Tilson.

Professor Jean E. Rubin of Purdue University organized two special sessions on Set Theory and the Axiom of Choice. Expository hour-talks were given by J. Richard Buchi and Gershon Sageev. The following gave twenty-minute talks: James D. Halpern, Paul E. Howard, Thomas J. Jech, Arthur Kruse, Hidegoro Nakano, David F. Pincus, Arthur L. Rubin, W. Richard Stark, Gaisi Takeuti, and Martin M. Zuckerman.

Professor Gary M. Seitz of the University of Oregon organized three special sessions on Representations of Finite Groups. The speakers were Thomas R. Berger, Harvey I. Blau, Burton I. Fein, Walter Feit, J. Sutherland Frame, James E. Humphreys, I. M. Isaacs, Gerald J. Janusz, Robert W. Kilmoyer, Vera S. Pless, Leonard L. Scott, Jr., Stephen D. Smith, Bhama Srinivasan, David Wales, and Warren J. Wong.

Professor Lawrence J. Wallen of the University of Hawaii organized a special session on Special Operators. Speakers included Joseph J. Bastian, Sandy Grabiner, Gerhard K. Kalisch, Paul S. Muhly, and Robert E. Waterman.

Professor James D. Stasheff of Temple University organized an informal session on Finite Dimensional H-Spaces.

There were ninety-three sessions of contributed ten-minute papers. They were chaired by Oscar R. Ainsworth, Thomas S. Angell, Vernon L. Bakke, Simon J. Bernau, Thomas K. Boehme, Richard A. Bogda, Daniel D. Bonar, Stephen A. Book, William M. Boothby, Joel V. Brawley, Terrence J. Brown, J. W. Burgmeier, A. J. Callegari, Jon F. Carlson, Theodore Chang, William C. Chewning, Moses E. Cohen, Chris S. Coray, Robert S. Cunningham, Joseph B. Dennin, Robert S. Doran, Patricia J. Eberlein, Barbara Faires, Francis J. Flaherty, Richard J. Fleming, Howard B. Hamilton, Jon C. Helton, Hans-Heinrich Herda, Ter-Jenq Huang, Saroj Jain, Marjory J. Johnson, William H. Julian, A. G. Kartsatos, Marvin S. Keener, Nicholas Krier, Arthur H. Kruse, Richard B. Lakein, Dana May Latch, Linda Lesniak, James T. Lewis, Judith Q. Longyear, Arthur R. Lubin, Edith H. Luchins, Donald B. McAlister, Peter A. McCoy, Kelly McKennon, Douglas McMahan, Osvaldo Marrerro, Donald J. Marxen, Frank B. Miles, John Misner, Suzanne M. Molnar, Irel Monroe, Anne C. Morel,

Melvyn B. Nathanson, Matthew J. O'Malley, William F. Orr, Chai Ven Pao, Mohsen Pazirandeh, Rao Potluri, Gerard P. Protomastro, Mark B. Ramras, K. Nageswara Rao, V. R. Gopala Rao, Marlon C. Rayburn, Jr., George M. Reed, A. C. Reynolds, Jr., Luis Ribes, Joel C. W. Rogers, M. Beth Ruskai, Edward B. Saff, Robert B. Schneider, Dorothy B. Shaffer, Swarupchand M. Shah, Albert O. Shar, Stephen S. Shatz, Helen Skala, Ronald Solomon, George E. Strecker, Theodore Sullivan, Kenneth E. Swick, Mark L. Teply, Audrey A. Terras, Riho Terras, William F. Trench, Donald W. Vander Jaqt, Carter Waid, Curtiss E. Wall, Lewis E. Ward, Jr., Bill Watson, N. A. Weiss, Sylvia Margaret Wiegand, and Robert Wolf.

The Council met on January 14, 1974 in the Continental Parlor of the Hilton Hotel at 2:00 P.M. President Mac Lane was in the chair.

The Council took several actions with respect to the publication program, in the form of recommendations to the Trustees.

The production and the content of the Index of Mathematical Papers is to be altered and improved. It is to become a detailed and timely author and subject index of all papers reviewed by Mathematical Reviews. It is observed that coverage is increased and that additional information, such as location of the review, becomes available. There is a cost to the user in that production is not quite so rapid. On the other hand, the journal Contents of Contemporary Mathematical Journals is to be produced as a biweekly subject classified index of all papers in mathematics, issued almost at the moment the papers appear in the office of Mathematical Reviews. The subject classification and the full coverage are to more than compensate for the slower production of the new Index.

The Bulletin is to be altered by an increase in the number of book reviews, possibly with shorter reviews, and by a decrease in number and in length of research announcements according to ground rules to be announced.

The Council approved the continuation of the procedure of nomination by petition for the positions of member-at-large of the Council under essentially the same terms as were in force during the trial period of 1972 and 1973 and authorized its extension to the positions of vice-president as well.

The Council established a committee to set up criteria for membership by reciprocity. The Council cancelled a reciprocity agreement, previously authorized by the Council, with the South African Mathematical Society, with an understanding that the possibility of the agreement can be reexamined in the light of the criteria when these have been formulated and approved.

The Council, speaking as the Council but not as the voice of the membership, approved the following statement:

We are deeply concerned by the plight of the Chilean universities, professors, and students. We are concerned that the rectors have been dismissed, the military have taken over direct control of the universities, and many professors and students expelled and arrested.

We urge the Chilean government to rescind these acts. We urge that everything possible be done to help refugees from Chile.

The Business Meeting convened on January 16, 1974 at 4:00 P.M. in the Continental Ballroom of the Hilton Hotel. President Mac Lane was in the chair.

The Secretary reported on various actions of the Council as detailed above.

There were three stated items of business, namely the following three resolutions that were placed on the agenda by the Business Meeting of January 27, 1973 in Dallas.

**RESOLUTION A:** In cases of alleged discrimination against mathematicians in matters of hiring, promotion or tenure for reasons of racial, sex or political bias, AMS shall pay legal expenses for the complainant in those cases where the complainant, in the opinion of the Council, has made out a prima facie case of such discrimination.

**RESOLUTION B:** The AMS declares itself in favor of the massive transfer of funds from the federal military budget to the support of education, including higher education, and calls upon the Council and staff to engage the Society in lobbying and publicity efforts directed to this end.

**RESOLUTION C:** The AMS views with alarm the present practice of increasing class sizes and teaching loads and other measures designed to save money by decreasing faculties at the expense of educational quality. The Council and staff of the Society are called upon to seek avenues for inducing colleges and universities to reverse this unhealthy trend.

Resolution A was replaced by a substitute, subsequently amended, to read

This meeting declares its categorical opposition to discrimination against mathematicians in matters of hiring, promotion, termination, tenure, and salary on the basis of race, sex, politics, religion, ethnic origin, age, or other non-professional characteristics.

This meeting calls upon the administration of the Society to assist victims of such discrimination by measures which may include, in addition to moral support, grants or loans in support of lawsuits. Similar aid may be offered to mathematicians who, in their professional capacity, have been victims of arbitrary administrative actions for which a legal remedy can be found. Any such financial aid should be given with due regard to fiscal prudence; it should begin on a small experimental basis, and the financial aspects of the situation should be examined, after two or three years, with a view to the formulation of a permanent policy.

In that form it was passed.

Resolution B was replaced by the following substitute:

This meeting declares itself in favor of the massive transfer of funds from the federal military budget to the support of education, including higher education.

Then the entire matter was tabled.

Resolution C was replaced by a substitute and then amended to read as follows:

This meeting views with alarm the present practice at many institutions of increasing class sizes and teaching loads, and otherwise saving money at the expense of educational quality and scholarly research. The Council and officers of the Society are called upon to seek means to reverse this unhealthy tendency.

In that form it was passed.

The meeting was adjourned at 6:10 P.M.

The Secretary remarks that following the Business Meeting, the Executive Committee and the Board of Trustees met jointly to consider how to proceed with respect to the modified form of Resolution A that was adopted. They passed the following resolution:

Resolved that the President is authorized to appoint a Committee on Legal Aid to consist of five persons to serve for a period of three years. The Committee is charged to concern itself with the problems of financial aid connected with legal cases arising from discrimination or arbitrary administrative action, such as may not be within the scope of the Committee on Academic Freedom, Tenure, and Employment Security. For that purpose the Committee is instructed to maintain close liaison with the Committee on Academic Freedom, Tenure, and Employment Security. As an initial phase of its charge, the Committee is to develop rules of procedure and a reporting scheme and to report on these to the Council in May 1974.

BETHLEHEM, PENNSYLVANIA

EUGENE, OREGON

EVERETT PITCHER,  
*Secretary*

KENNETH A. ROSS,  
*Associate Secretary*