

THE ANNUAL MEETING IN NEW ORLEANS

The seventy-fifth annual meeting of the American Mathematical Society was held at the Jung Hotel in New Orleans, Louisiana, on Thursday through Sunday, January 23–26, 1969, in conjunction with the annual meeting of the Association for Symbolic Logic, the annual meeting of the Mathematical Association of America, and a meeting of the National Council of Teachers of Mathematics. There were 4,811 registrants, including 3,084 members of the Society.

The forty-second Josiah Willard Gibbs Lecture, *Trends and social implications of research*, was delivered by Professor R. L. Wilder of the University of Michigan at 8:00 P.M. on Thursday, January 23. Professor Wilder was introduced by Professor Oscar Zariski, president of the Society.

By invitation of the Committee to Select Hour Speakers for Annual and Summer Meetings there were two invited addresses. Professor Jürgen K. Moser of the Courant Institute of Mathematical Sciences, New York University, spoke on *Stability theory and invariant manifolds for dynamical systems*. He was introduced by Professor Garrett Birkhoff of Harvard University. Professor Calvin C. Moore of the University of California, Berkeley, who was introduced by Professor S. M. Ulam of the University of Colorado, presented an address entitled *Geometric ergodic theory*.

At 1:30 P.M. on Thursday, January 23, the Bôcher Memorial Prize was awarded to Professor I. M. Singer of the Massachusetts Institute of Technology. The prize was given in recognition of his work on the index problem, especially his share in two joint papers with M. F. Atiyah that appeared in the *Annals of Mathematics*, (2), vol. 87, no. 3. The presentation was made by Professor Oscar Zariski.

There were two special sessions of selected twenty-minute papers, one on Geometry in Mathematics and the other on Complex Analysis. The session on Geometry in Mathematics was arranged by Professor Preston C. Hammer of Pennsylvania State University and included papers by J. C. C. Nitsche, Branko Grunbaum, R. D. Anderson, Patrick Suppes, Marshall Hall, Jr., H. S. M. Coxeter, K. O. Friedrichs and Garrett Birkhoff. The session on Complex Analysis was under the chairmanship of Professor W. H. J. Fuchs and included papers by Peter L. Duren, R. N. Pederson, A. W. Weitsman, H. M. Farkas, G. R. MacLane, Richard S. Hamilton, R. J. Sibner, Hung-Hsi Wu, A. H. Cayford, and J. J. Kelleher.

There were sixty-eight sessions for contributed ten-minute papers, presided over by the following: Jack E. Ohm, Donald B. Coleman,

Stanislaw M. Ulam, Edward Dubinsky, Frank Cholewinski, Anton J. Zettl, G. F. Clements, Peter C. Wang, E. M. Zaustinsky, Kyung W. Kwun, K. Nakano, James P. Jans, Erwin Kleinfeld, Paulo Ridenboim, Heron S. Collins, J. B. Diaz, William H. Ruckle, Woodrow W. Bledsoe, Frank Stenger, Frank Harary, Robion C. Kirby, Louis F. McAuley, Perrin Wright, R. E. Chandler, Karl H. Hofmann, John W. Brace, J. T. Darwin, W. Roy Utz, Jr., Witold M. Bogdanowicz, William E. Jenner, H. F. Kreimer, G. J. Smith, Hubert S. Butts, David A. Smith, John M. Irwin, Andrew Sobczyk, Daniel E. Wulbert, Swarupchand M. Shah, P. C. Loh, J. S. McNerney, H. V. Kronk, Henry M. Schaerf, Richard Osborne, Paul F. Conrad, Ancel Mewborn, Paul Hill, Seth L. Warner, Robert C. James, Franz Kamber, Thomas Hallam, Peter L. Duren, Mrs. F. M. Clark-Carroll, James D. Halpern, Vadim Komkov, R. A. Stoltenberg, Haskell Cohen, Hans Schneider, Joe Neggers, Paul J. McCarthy, W. T. Kraynek, Shmuel Kaniel, John S. Bradley, S. K. Berberian, Robert W. Bowman, J. G. Maxwell, F. W. Stallman, S. Armentrout, and F. W. Leysieffer.

Abstracts of papers presented at the meeting appear in the *Notices* of the American Mathematical Society for January, 1969.

The Arrangements Committee for the meeting consisted of Z. L. Loflin, Chairman, H. L. Alder, R. D. Anderson, Mrs. Beverly L. Brechner, A. H. Clifford, L. J. Derr, E. L. Dubinsky, J. W. Ellis, O. G. Harrold, Brother Charles Klein, R. J. Newman, Sister Mary Robert von Wolff, and G. L. Walker.

The Council met on January 22, 1969, in Terrace Suite 5 of the Jung Hotel in New Orleans at 2:00 P.M.

The Secretary announced the election of the following 146 persons to ordinary membership in the Society:

Afflack, Ruth H., California State College at Long Beach;
 Alexander, F. Doyle, Stephen Austin State College;
 Alexits, George D., Hungarian Academy of Science, Budapest, Hungary;
 Barnes, David C., Washington State University;
 Basmaji, Butrus G., University of Nebraska;
 Benza, Jose L., Institute de Ciencias, Asuncion, Paraguay;
 Bienert, Lyndon K., Devry Institute of Technology;
 Billera, Louis J., Cornell University;
 Black, Leland D., Lakehead University;
 Blakney, Simmie S., University of Toledo;
 Bouwer, Izak Z., University of Waterloo;
 Browning, Ronald Lee, State University of New York, College at Geneseo;
 Burnett, Ronald F., 1 Washington Avenue, Morristown, New Jersey;
 Cambell, Jimmy R., Northeast Louisiana State College;
 Carty, Frederick, UNIVAC, East Hanover, New Jersey;

- Chapin, B. Theodore, Andrews University;
Chatin, Gregory J., IBM World Trade, Buenos Aires, Argentina;
Cohen, Edgar A., Jr., Naval Ordnance Laboratory, Silver Springs, Maryland;
Cole, Henry S., West Coast University;
Conn, Harry R., Macmillan Incorporated, New York, New York;
Crane, Giles L., Box 932, West Caldwell, New Jersey;
Dailey, Jeraldine W., West Liberty State College;
Daly, John T., State University of New York, College at Oswego;
Darken, Joanne S., Temple University;
Derr, James B., University of New Mexico;
Dotson, William G., Jr., North Carolina State University at Raleigh;
Duggan, Edward I., Iona College;
Dunkel, Gregory M., National Biomedical Research Foundation;
Ellis, Arthur B., University of Miami;
Engle, Jessie Ann N., Ohio State University;
Farley, Reuben W., Virginia Commonwealth University;
Felippa, Carlos A., Boeing Company, Renton, Washington;
Findley, Hilda K., Illinois Institute of Technology;
Fitzgerald, Joseph M., United States Marine Corps;
Fleming, Walter, Hamline University;
Freiman, Richard, University of Maryland;
Friesen, Donald K., University of Illinois;
Fuelberth, John D., Colorado State College;
Gentry, Fenton A., Texas Instruments Incorporated, Dallas, Texas;
Gillette, Richard M., Montana State University;
Goetze, Ernst, Jr., 197 Scarborough Road, Toronto 13, Ontario, Canada;
Goudey, Gordon M., University of Baltimore;
Greeley, Michael P., University of Oregon;
Grigsby, Katharine, East Tennessee State University;
Gunzler, H., Mathematik Institut der Universität, Göttingen, Germany;
Haeder, Paul A., University of Nebraska at Omaha;
Hastings, Harold M., Hofstra University;
Hertz, Kenneth J., Reed College;
Hoffman, Peter N., University of Waterloo;
Horner, Arnold G., National Security Agency, Fort Meade, Maryland;
Huq, Syed A., University of Islamabad, Rawalpindi, Pakistan;
Infanta, Ettore, Brown University;
Jacobowitz, Howard J., New York Institute, Courant Institute of Mathematical Sciences;
Jayne, John W., U. S. Naval Academy, Annapolis, Maryland;
Jeroslow, Robert G., Cornell University;
Johnson, Vivian M., 227 West Norrie Street, Ironwood, Michigan;
Jones, Ralph, University of Wisconsin;
Josler, Thomas J., St. Joseph's College;
Kalme, Charles I., University of Southern California;
Kang, Myung K., Konjgu Teachers College, Konjgu, Korea;
Karamadian, Stepan, University of California at Irvine;
Kilgore, Robert B., University of Pittsburgh;
King, Larry, University of Massachusetts;
King, Ronald S., Texas Lutheran College;

Knutson, Gerhard W., Michigan State University;
Koehler, Anne B., Western College of Women;
Koehler, Donald O., Miami University, Oxford, Ohio;
Krause, Guenter R., Washington State University;
Kraut, Edgar A., North American Rockwell Corporation;
Kurtz, Thomas G., University of Wisconsin;
Lampe, William A., Pennsylvania State University, Scranton;
Laszlo, Wayne O., NASA, Houston, Texas;
Levow, Roy B., University of Pennsylvania;
Lutz, James A., University of Maryland;
Maloof, Giles W., Boise State College;
Manke, Arno E., Missouri Valley College;
Markin, Jack T., Sandia Corporation, Albuquerque, New Mexico;
Matowsky, Bernard J., Rensselaer Polytechnic Institute;
McDonald, Bernard R., University of Oklahoma;
Meagher, Jack R., Western Michigan University;
Menard, Jean, University of Montreal;
Michalick, Johannes F., University of Hamburg, Hamburg, Germany;
Miller, Donald J., University of Victoria;
Montero, Bernard B., University of Costa Rica, San Jose, Costa Rica;
Morgan, John W., Rice University;
Morse, Bruce L., Defense Department, Fort Meade, Maryland;
Mosher, James R., Texas A & M University;
Netzband, Rachel H., Cazenovia College;
Neuendorf, Edward J., University of Dayton;
Nixdorff, Kurt, AEG Telefunken, Konstanz, Germany;
Pack, Jimmy D., Middle Tennessee State University;
Pandey, Jagdish N., University of Carleton, Ottawa 1, Ontario, Canada;
Piacun, Norma M., P.O. Box 439, Waveland, Mississippi;
Pinter, Charles C., Bucknell University;
Pinzon, Alvarado E., University Del Valle, Cali, Colombia;
Popistojanovic, Zoran R., University of Florida;
Priest, Dean B., Harding College;
Proctor, Thomas G., Clemson University;
Proffitt, Michael H., State University of New York, College at New Paltz;
Purcell, Robert J., Seton Hall University;
Puri, Madan L., New York University, Courant Institute of Mathematical Sciences;
Reed, Dennis K., University of Utah;
Rich, Michael, Indiana University Northwest;
Rivera Muniz, Pedro I., Grand Valley State College;
Roberts, Fred S., Rand Corporation, Santa Monica, California;
Rossman, Judith L., Philadelphia Community College;
Ruegg, Alan F., University of Connecticut;
Sardinal, August A., Villanova University;
Savits, Thomas H., Princeton University;
Scharfstein, Joel, Columbia University;
Schell, Joseph F., University of North Carolina at Charlotte;
Schiller, John J., Temple University;
Sehgal, Sudarshan K., University of Alberta, Edmonton, Alberta, Canada;
Shanholt, Gerald A., U. S. Army, Fort Belvoir, Virginia;

Sherrell, James O., General Tire Corporation, Erie, Pennsylvania;
 Slocum, Marianna P., California State College, Dominguez Hills;
 Smith, Lois E. B., University of South Alabama;
 Souza, Jayme E. R., Faculty Science University, Porte, Portugal;
 Spears, William T., Kansas State University;
 Stein, George H., Columbia University;
 Stern, Frederick, Stevens Institute of Technology;
 Stiefel, Edward L., Eidgenössische Technische Hochschule, Zurich, Switzerland;
 Stone, David R., Georgia Southern College;
 Stouffer, Robert T., University of New Mexico;
 Sutherland, William Richard S., University of Toronto;
 Szego, Peter A., Ampex Corporation, Redwood City, California;
 Tench, Alan H., University of Colorado;
 Thomson, Brian S., Simon Fraser University;
 Thornhill, Marcus J., Virginia Military Institute;
 Ting, Wei Lung, State University of New York at Plattsburgh;
 Trunnell, David C., Xavier University;
 Tsagas, Grigorios F., University of Thessaloniki, Greece;
 Van Meter, Garrett O., II, University of Maryland;
 Walker, Duane R., Lewis College;
 Wayment, Stanley G., Utah State University;
 Wegener, Delano P., University of Ohio;
 Wessel, W. Roy, Argonne National Laboratories, Argonne, Illinois;
 Westreich, David, Yeshiva University;
 Whittemore, Alice S., Hunter College, City University of New York;
 Williams, Charles R., Midwestern University;
 Woerner, Katherine L. W., University of Texas;
 Wright, Harvel A., Oak Ridge National Laboratory, Oak Ridge, Tennessee;
 Yhap, Ernesto F., 80 East End Avenue, New York, New York;
 Young, Jonathan D., University of California at Berkeley;
 Zachariou, Andreas Z., Oklahoma State University;
 Zemaitis, Vincent R., Metropolitan Life Insurance Company, New York, New York.

It was announced that the following persons have been elected to membership in the Society in accordance with various reciprocity agreements:

Union Mathematica Argentina: Luis R. Colavita.

Australian Mathematical Society: Bruce D. Craven, Raja R. Huilgol, Sheila O. MacDonald.

Österreichische Mathematische Gesellschaft: Hans Lausch.

Societe Mathematique de France: Gabriel Sabbagh.

Deutsche Mathematiker Vereinigung: Peter Burmeister, Erich Ossa.

Gesellschaft für Angewandte Mathematik und Mechanik: Lothar O. Collatz.

The London Mathematical Society: John F. Humphreys, Derek J. S. Robinson.

Indian Mathematical Society: Robert P. Burn, Nirmala Pakash, Hariharaiyer Subramanian.

Israel Mathematical Union: Morel M. Marcus.

Unione Matematica Italiana: Giuseppe Geymonat.

Mathematical Society of Japan: Mamoru Mimura, Kiyoshi Noshiro, Kano Takeshi, Yoshikatsu Yamamura.

The following three persons have been elected to membership in the Society upon nomination of institutional members as indicated:

Muskingum College: Stephen J. Kublank, Allen R. Strand.

University of Virginia: Thomas L. Kriete III.

The Secretary announced the election of the following organizations to institutional membership:

Bates College, Lewiston, Maine

Hardin-Simmons University, Abilene, Texas

Shimer College, Mt. Carrol, Illinois

Texas A&I University, Kingsville, Texas

Whitworth College, Spokane, Washington

Wisconsin State University, Eau Claire, Wisconsin

The Secretary recorded that the following persons represented the Society at various functions as noted:

A. R. Bednarek at the inauguration of Stephen Cornelius O'Connell as President of the University of Florida

E. H. Lee at the inauguration of The Very Reverend Thomas D. Terry as President of the University of Santa Clara

Henry C. Howard at the inauguration of W. M. Strickler as President of the University of Louisville

Stanley F. Dice at the inauguration of Brage Golding as President of Wright State University

Elliott L. Buell at the 125th Anniversary Convocation at The College of the Holy Cross

M. G. Boyce at the inauguration of James Raymond Lawson as President of Fisk University

Thelma Austin Rice at the inauguration of Allen Keith Jackson as President of Huntingdon College

L. R. Wilcox at the inauguration of Edward Hirsch Levi as President of the University of Chicago

Philip M. Whitman at the inauguration of Werner A. Baum as President of the University of Rhode Island

Hewitt Kenyon at the inauguration of George H. Williams as President of the American University

George N. Raney at the inauguration of Theodore Davidge Lockwood as President of Trinity College

Walter Prenowitz at the inauguration of James Britt Donovan as President of Pratt Institute

Kenneth S. Ghent at the Centennial Celebration of Oregon State University

Reino W. Hakala at the inauguration of John Herbert Hollomon as President of the University of Oklahoma

Richard P. Goblirsch at the inauguration of Richard P. Bailey as President of Hamline University

Francis J. Scheid at the inauguration of Very Reverend W. Seavey Joyce as President of Boston College

Anna S. Henriques at the inauguration of Ferrel Heady as President of the University of New Mexico.

The President has established Committees and added members to Committees as follows:

Committee to Select Hour Speakers for Eastern Sectional Meetings: new member, Richard Brauer

Committee to Select Hour Speakers for Western Sectional Meetings: new member, Mark Mahowold

Committee to Select Hour Speakers for Far Western Sectional Meetings: new member, E. F. Beckenbach

Committee to Select Hour Speakers for Southeastern Sectional Meetings: new member, E. E. Floyd

Committee to Select Hour Speakers for Summer and Annual Meetings: new member, John Milnor

Tellers for 1968 Election: John I. Nassar, Luther J. Deck

Committee on Summer Institutes: new members, Gilbert Hunt, Lynn H. Loomis

Committee on Mathematics in the Life Sciences: additional members, Robert MacArthur, R. C. Lewontin

Editorial Advisory Committee on the English Edition of the Encyclopedia of the Mathematical Society of Japan: S. H. Gould, E. Hewitt, chairman, Shizuo Kakutani, K. O. May, Isaac Namioka

Arrangements Committee for the Annual Meeting, New Orleans: Z. L. Loflin, chairman, H. L. Alder, R. D. Anderson, Beverly L. Brechner, A. H. Clifford, L. J. Derr, J. E. Diem, E. L. Dubinsky, J. W. Ellis, J. K. Feibleman, O. G. Harrold, Brother Charles Klein, R. J. Newman, Sister Mary Robert von Wolff, G. L. Walker

Arrangements Committee for the Summer Meeting, Eugene: Frank W. Anderson, chairman, H. L. Alder, Philip M. Anselone, Hubert E. Chrestenson, Helen M. Ghent, Larry C. Grove, John V. Leahy, Andrew F. Moursund, R. S. Pierce, Donald R. Truax, James M. Van Buskirk, Phyllis K. Van Buskirk, G. L. Walker, Charles R. B. Wright, Howard E. Zink

Commission on the National Information System: F. Browder, J. Douglas, Jr., W. J. LeVeque, chairman, I. Niven (also representing MAA), A. Rosenberg, G. L. Walker, D. Zelinsky, all representing AMS. Other members or temporary representatives, responsible to various societies as noted, include: I. E. Block (SIAM), R. P. Boas (MAA), R. C. Buck (MAA), J. Wallace Givens (SIAM), John Gosden (ACM), Robert Graves (ORSA), W. J. Jameson, Jr. (SIAM), S. Kotz (IMS), Geoffrey Moore (ASA), Cecil Nesbitt (SA), J. B. Rosser (SIAM, ASL), D. L. Thomsen (SIAM), R. M. Thrall (TIMS), J. F. Traub (ACM), F. J. Weyl (SIAM), Stephen Willoughby (NCTM).

The Council received the report that they had elected J. T. Schwartz and V. L. Klee, Jr. to membership on the Executive Committee.

The Council authorized the President to appoint a Committee of not more than twelve persons, including one or more Editors of the Bulletin, to act as a prize committee, examining unsolicited articles and deciding whether any of them are worthy of inclusion in the Bulletin.

The Council invited Professor R. H. Bing to deliver a set of Colloquium Lectures at the Summer Meeting of 1970 in Laramie.

The report of the Tellers of the 1968 Election, now published in the current volume of this Bulletin on p. 31, was received.

The Council elected Herbert B. Keller and P. Emery Thomas to represent the Society in the Division of Mathematical Sciences of the National Academy of Science—National Research Council for three year terms beginning July 1, 1969.

The Council approved a Symposium on Some Mathematical Questions in Biology in conjunction with Section A of the American Association for the Advancement of Science in Boston in December 1969. The Committee on Mathematics in the Life Sciences proposed one half day on Models of Developing Organisms and one half day on Models of the Brain.

The Council authorized a standing committee on national awards and public representation of mathematics.

The Council authorized the preparation of a booklet on the technique and the art of writing a grant proposal, together with a listing of sources of funds.

The President was authorized to appoint a committee to investigate the welfare of mathematics students and mathematicians whose careers have been interrupted for involuntary service of any kind.

The Council adjourned at 6:30 P.M.

The annual business meeting of the Society was held at 1:15 P.M. on January 25, 1969 in the Grand Ballroom of the Jung Hotel, with Ex-president C. B. Morrey, Jr. in the chair. Attendance was unusually large, being over four hundred by count early in the meeting and close to one thousand by estimate later in the meeting.

The Secretary reported on various matters that had taken place in the Council meeting and that have been detailed earlier in this account of the meeting. In addition he made three special reports.

The first concerned the April meeting in Chicago. Extended discussion with action delayed the completion of his report.

On the Chicago meeting he spoke as follows:

The history . . . of the April 1969 meeting in the West is [this]. Chicago was approved as the site by the Executive Committee in December 1966, following the recommendation of the Associate Secretary. The dates were April 18-19, 1969.

The current Associate Secretary makes the following statement: "At the Madison meeting and in early September, I made numerous informal inquiries among mathematicians as to the desirability of having the April meeting in Chicago and received not a single objection." The final arrangements were made with the Palmer House near the end of September.

When indignation rose subsequent to that date, the question of whether to hold meetings in Chicago was examined by the Executive Committee and the Trustees at their joint meeting on December 7-8, 1968. There were two separate issues.

1. *Should one hold the April 1969 meeting in Chicago?* Here it quickly became clear that the Society had a firm agreement with the Palmer House. The joint bodies agreed that the Society is bound by the agreement and should hold that particular meeting as planned.

2. *Should one hold other meetings in Chicago?* Here the situation is quite different. Although the Executive Committee has long since scheduled some other meetings in Chicago, the decision is internal. No commitments have been made. The Executive Committee is studying a scheme of rotation of places of meetings in the West, having either no meetings or rare meetings in Chicago. In particular the April 1970 meeting is planned for a location other than Chicago.

After various parliamentary maneuvers, Professor Lee Lorch introduced the following resolution:

Resolved, that the Executive Committee be requested to take steps to remove the April 1969 meeting from Chicago.

The resolution passed. [Subsequently, the Executive Committee and the Executive Director did arrange that the meeting of April 1969 in the West be held on April 18-19 at the Netherland Hilton Hotel in Cincinnati.]

Professor E. L. Dubinsky made an introductory statement and introduced these five resolutions:

As a professional organization of academicians the members of the American Mathematical Society have the right and duty to take corporate action expressing their proper concern with conditions which affect the quality of civilized living and the evolving development of higher education. Specifically, the Society should adopt and support the following five resolutions which we respectfully propose for consideration at the next business meeting.

1. Resolved, that since scientific discovery by its nature requires complete open channels of information, it follows that classified research is a contradiction in terms. Members should consider most seriously participation in any investigation under a contract restricting full exchange of information with learned men everywhere, and as a society we recommend that members seek to disengage themselves from such activity.
2. Resolved, that the American Mathematical Society urges each of its members to use his talents in ways that promote peace and to refrain from activities whose primary purpose is to promote warlike efforts.
3. Resolved, that a committee be appointed to study the causes and course of the current worldwide upheaval in relationships among faculty, students, and administration in higher education, with particular reference to the situation at San Francisco State College. This committee shall report to the members with recommendations for suitable action, in the *Notices* of the Society.
4. Resolved, that the *Notices* shall be open for letters and articles discussing issues which concern the members as scholars and citizens generally as well as mathematicians particularly.
5. Whereas the shortage of mathematicians in North American universities is different and greater among black and brown Americans than among whites, and whereas this situation is not improving, be it resolved that the AMS appoint a committee composed of black and third world mathematicians to study this problem and other problems concerning black and third world mathematicians, and report their conclusions and recommendations to the Society.

The resolutions were seconded and await action.

The Business Meeting adjourned at 3:25 P.M.

EVERETT PITCHER
Secretary

BETHLEHEM, PENNSYLVANIA

O. G. HARROLD
Associate Secretary

TALLAHASSEE, FLORIDA