THE ANNUAL MEETING IN LAS VEGAS

The seventy-eighth annual meeting of the American Mathematical Society was held at the Sahara Hotel in Las Vegas, Nevada from Monday, January 17 through Thursday, January 20, in conjunction with the Mathematical Association of America. There were 2,757 registrants, including 2,209 members of the Society.

The forty-fifth Josiah Willard Gibbs Lecture, *Missed opportunities*, was given by Professor Freeman J. Dyson of the Institute for Advanced Study at 8:30 p.m. on Monday, January 17. Professor Dyson was introduced by Professor Nathan Jacobson.

By invitation of the Committee to Select Hour Speakers for Summer and Annual Meetings, there were eight invited addresses. Professor Blaine Lawson of the University of California, Berkeley, spoke on *Foliations of compact manifolds*. He was introduced by Professor Calvin C. Moore of the University of California, Berkeley. Professor Robert M. Solovay of the University of California, Berkeley, lectured on *Powers of singular cardinals*. He was introduced by Professor Mary Ellen Rudin of the University of Wisconsin. Professor Myles Tierney of Rutgers University spoke on *Some applications of an axiomatic theory of sheaves*. Professor Saunders Mac Lane of the University of Chicago introduced Professor Tierney. Professor Robert F. Williams of Northwestern University lectured on *The structure of attractors*; he was introduced by Professor Stephen Smale of the University of California, Berkeley. Professor Richard S. Palais of Brandeis University lectured on *Equivariant real algebraic differential topology*. Professor Morris W. Hirsch of the University of California, Berkeley, introduced Professor Palais. Professor Hugo Rossi of Brandeis University gave an address entitled *On automorphism groups of induced CR structure*; he was introduced by Professor John Wermer of Brown University. Professor Jacob T. Schwartz of the Courant Institute of Mathematical Sciences, New York University, spoke on *Complexity of statement, computation, and proof*. Professor Herbert B. Keller of the Firestone Laboratory, California Institute of Technology, introduced Professor Schwartz. Professor Charles C. Pugh of the University of California, Berkeley, lectured on *The closing lemma revisited*; he was introduced by Professor Robert F. Williams of Northwestern University.

The Frank Nelson Cole Prize in the Theory of Numbers was awarded to Professor Wolfgang M. Schmidt of the University of Colorado on Wednesday, January 19. The prize was given in recognition of the following four papers: *On simultaneous approximations of two algebraic numbers*.

The Conference Board of the Mathematical Sciences presented a panel discussion on Performance Contracting and Mathematics in the Schools on Wednesday, January 19. On Tuesday, January 18, the American Mathematical Society Committee on Employment and Educational Policy sponsored a general discussion of the employment situation. A board meeting of the Rocky Mountain Mathematics Consortium was held on Thursday, January 20.

There were two special sessions of selected twenty-minute papers. A session on Harmonic Analysis on Solvable and Nilpotent Lie Groups was arranged by Professor Louis Auslander of the City University of New York and was held on Monday, January 17. Professor Morris W. Hirsch of the University of California, Berkeley, organized a session on Foliations and Stable Manifolds. This session was held on Tuesday, January 18. An informal session on Noncommutative Approximation Theory was organized by Professor Paul Halmos of Indiana University. This session also ran on Tuesday, January 18.


The Arrangements Committee for the meeting consisted of E. Maurice Beesley, chairman, Paul Aizley, H. L. Alder, ex officio, Michael A. Goldberg, Robert Clark Hooper, Kenneth A. Ross, ex officio, Lewis J. Simonoff, Gordon L. Walker, ex officio, and Edward F. Wishart.

The Council met on January 16, 1972 at 2:00 P.M. in Rooms 11-12 of the Sahara Hotel, with President Jacobson in the chair. It was the first meeting held in accord with newly established policy that meetings are ordinarily to be open to the membership, although visitors may not have the floor except by permission.

The Secretary announced the election of the following 160 persons to ordinary membership in the Society:

Albright, Richard A., Hobart & Smith Colleges
Aleksandrov, I. A., Academy of Science-Ukrania, Donetsk, USSR
Altilio, Joseph John, Jr., Fordham University
Angwin, George T., Illinois State University
Axler, Sheldon J., University of California, Berkeley
Baclawski, Kenneth Paul, Harvard University
Basu, Adhir K., Laurentian University
Becker, Sister Patricia, Rosemont College
Belanger, David G., University of South Alabama
Belding, W. Russell, University of Notre Dame
Berenbom, Joshua, Polytechnic Institute of Brooklyn
Beyma, Severin R., Hampton Institute
Biroli, Marco, Via Marcona 15, Milano, Italy
Blackmore, Denis L., Newark College of Engineering
Blanco Guevara, Ernesto Aly, Venezuelan Air Force Academy
Boler, James, Rice University
Boren, Sue, University of Tennessee at Martin
Brown, Marianne S., Dartmouth College
Bruggeman, John J., IBM, San Jose, California
Buck, Robert Jay, University of California, Davis
Burns, Susan E., University of Alaska
Butler, Jean W., University of Washington
Button, Robert W., Carnegie-Mellon University
Cahen, Paisl-Jean, Queen’s University
Caiha, Prabha, National Institute of Bank Management, Bombay, India
Chang, Elizabeth Brabson, University of Maryland
Chang, K. W., University of Calgary
Cheung, King Lai, Almart Department Store, New York, New York
Chin, Bang-Yaw, Desert Research Institute, Reno, Nevada
Choi, Shiu Lun Godfrey, University of British Columbia
Clover, William John Jr., Concordia Teachers College
Connor, Philip J., Devon Preparatory School
Cook, L. Pamela, Cornell University
Costello, F. T., Dale Engineering Company, Utica, New York
Cowan, John C., III, Webco Mills, Inc., Burlington, North Carolina
Cowens, J. Wayne, 1101 North Calvert Street, Apt. 807, Baltimore, Maryland
Dana, Stephen F., Addison-Wesley Publishing, Reading, Massachusetts
Dayton, Barry H., Northeastern Illinois University
De Gonzalez, Morales Josepina, University of Puerto Rico
DeLaurentis, Matthew P., 102 South Holly Avenue, Maple Shade, New Jersey
Dellen, Donald E., Wadsworth Publishing, Belmont, California
Duncan, T. E., State University of New York at Stony Brook
Ehrlich, Paul Ewing, State University of New York at Stony Brook
Elson, Constance McMillan, Ithaca College
Fay, Temple Harold, Hendrix College
Feinerman, Robert P., Herbert H. Lehman College (CUNY)
Feldman, William Alan, University of Arkansas
Fermin, Saturnino, Polvorin A Pila No 8, Lapastora, Caracas 101, Venezuela
Flynn, Gerald, Polytechnic Institute of Brooklyn
Freeburg, Donald C., Fitchburg State College
Gaisser, John W., 416 South Alvord, Evansville, Indiana
Garbutt, Max O., Moorpark College
Gardner, Celesta Jill, Virginia Polytechnic Institute and State University
Geller, Nancy L., University of Rochester
Geman, Donald, University of Massachusetts
Giroux, Gaston, University of Sherbrooke
Grams, William F., Florida State University
Greenberg, William Indiana University
Hall, Robert E., State University of New York at Brockport
Haskins, Loren J., University of Denver
Hatta, Leiko, University of Houston
Hee, Christopher E., Eastern Michigan University
Hery, William J., Polytechnic Institute of Brooklyn
Holt, Kathleen D., University of Pittsburgh
Hryczyszyn, Joseph D., Illinois State University
Hsu, Tiao-Tiao, University of California at Los Angeles
Hu, Ming-Kuei, Syracuse University
Hung, Henry Hin-Lai, McGill University
Immergut, Edmund H., Gordon & Breach, New York, New York
Jensen, Don Cook, University of Waterloo
Johnson, Donald E., North Central College
Johnson, Gary M., Aerospace Research Laboratory, Wright-Patterson
AFB, Ohio
Kahane, Charles T., University of Illinois
Kapoor, O. P., Indian Institute of Technology, Kanpur, India
Kelly, David, University of Mannheim
Kelly, David, Queen's University
Kent, Michael J., University of Georgia
Kentzer, Czeslaw P., Purdue University
Khiem, Chu Duy, 194/1 Vo Di Nguy, Phy Nhuan, Vietnam
Kingman, J. F. C., University of Oxford
Kollett, Francis W., Loyola University
Kotzig, Anton, Université de Montréal
Kranzler, Stanley K., University of Hawaii
Kuzanek, Jerry F., 885 West El Repetto Drive, Apt. 46, Monterey Park, California
Langan, Thomas J., Naval Ship Research and Development, Carderock, Maryland
Langbein, Eugene G., Alphonsums College
Lathan, Calvin A., Monroe Community College
Leavitt, Teddy C., State University of New York at Plattsburg
Lee, Robert Alec, State University of New York at Buffalo
Lim, Chong-Keang, University of Malaya
Lue, Huei-Shyong, University of Notre Dame
Machuca, Raúl G., Monterrey Institute of Technology
Macri, Nicholas, Temple University
Matas, Margarita M., Herbert H. Lehman College, City University of New York
Mazaitis, George, Adelphi University
McClellan, David Bruce, 12 Forest Drive, Albany, New York
McCreven, George Patrick, Jr., 50 Saint Agatha Road, East Milton, Massachusetts
McCutchson, Thomas R., University of California at Los Angeles
Meyer, Robert L., California State College at Los Angeles
Moreman, Douglas, Auburn University
Moulis, Edward J., Jr., Frostburg State College
Mureika, Roman A., University of Alberta
Nash, David, University of California at Berkeley
Neimann, Albert A., Federal Government, Concord, California
Nguyen Cao, Dam, University of Cantho, South Vietnam
Oba, Marilyn K., Loyola University of Los Angeles
O’Boyle, James Nicholas Jr., University of Maine
Pacholke, Kenneth, University of Colorado
Page, Warren, New York City Community College, City University of New York
Pankin, Mark D., University of Iowa
Pelles, Donald Alfred, University of South Carolina
Perlmutter, Dianne Haber, Northeastern University
Peyovitch, T. Z., University of Belgrade
Phillips, David George, Wappingers Falls Central School District
Pickorides, Stylianus, 11 Irakleous Street, Athens, Greece
Pinker, Aron, Frostburg State College
Poole, William G., Jr., College of William & Mary
Pound, Lelia D., 5526 East 65th Place, Tulsa, Oklahoma
Purdy, Michael G., Valparaiso University
Ramkisson, Harold, University of Alberta
Rant, William, 705 North Church Street, Jacksonville, Alabama
Rawson, Freeman, L., III., Stanford University
Riedlinger, Roy F., Mankato State College
Riess, R. D., Virginia Polytechnic Institute and State University
Ronveaux, Andre, University of Notre Dame de la Paix, Brussels, Belgium
Rothbart, Andrea May, California State College, Bakersfield
Schapira, Michael Jay, Brooklyn College, City University of New York
Schumacher, Dietmar, Acadia University
Schumacher, Leif A., 5400 Pooks Hill Road, Apt. 817, Bethesda, Maryland
Schumaker, Larry L., University of Texas at Austin
Selesnick, Stephen Allan, Louisiana State University
Sewell, Michael J., University of Reading
Shenkin, Peter, John Jay College, City University of New York
Shepherd, Roger A., 8332 Imperial Drive, Laurel, Maryland
Shih, Chao-Dung, University of Houston
Shriver, Bruce D., State University of New York at Buffalo
Siegel, Jerrold N., University of Missouri at St. Louis
The following persons have been elected to membership in the Society in accordance with various reciprocity agreements:

Australian Mathematical Society: John Newsome Crossley, Geoffrey Lewis.
Deutsche Mathematiker-Vereinigung e.V.: Henning Esser.
Mathematical Society of Japan: Takeshi Matsuura, Shoji Watanabe.
Norsk Matematisk Forening: Steiner Magne Hveberg, Arne Stray.
Real Sociedad Matematica Española: Antonio De Castro, Juan Llovet.
Schweizerische Mathematische Gesellschaft: Jean-Pierre Schellhorn.
Societe Mathematique de France: Raymond C. Barre, Rene Jean Benlian, Jean Raymond Genet.
Svenska Matematikersamfundet: Torbjorn Hedberg, Martin G. Ribe.
Unione Matematica Italiana: Antonio J. Brandao Lopes Pinto.

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

University of Alabama in Birmingham: Alice Fleming Lott, A. J. Mims, Travis B. Wood.
Andrews University: R. Lewis Caviness, Bettye L. Nichols.
Berea College: Rita Yvonne Hopkins, Dennis Strickler.
University of Bridgeport: Helen H. Hu, Joseph Venditti.
Bucknell University: David Finkel, Kenneth S. Kaminsky, D. Paul Souders
Catholic University of America: John E. August, Eduardo A. Luna, David C. Mayne, Richard O. Pellerin.
University of Denver: Mark J. Balas, Dexter Strawther.
University of Georgia: William S. Owen, Jr.
Middlebury College: Robert Goodsell, Frederick Tinsley.
University of Missouri at Rolla: Karen Carter.
Newberry College: Nathan Kibler Williamson.
Northeastern Illinois University: Kim Castagna.
Polytechnic Institute of Brooklyn: William J. Amadio.
Reed College: William A. Adkins.
Rockefeller University: Pierre L. J. Van Moerbeke.
San Fernando Valley State College: James V. Anderson, Charles Frank Peters, Jerry Morris Karl, Christine Spengel.
University of Washington, Seattle: Rebecca R. Kitto.
University of Wisconsin: Roy W. Pengra.
Worcester Polytechnic Institute: Barry M. Moran.

It was noted that President Jacobson had established committees and had made appointments to committees as follows:

Committee to Select Hour Speakers for Southeastern Sectional Meetings: Trevor Evans
Committee to Select Hour Speakers for Far Western Sectional Meetings: Charles J. Stone
Committee to Select Hour Speakers for Summer and Annual Meetings: Frederick W. Almgren, Daniel Gorenstein, William H. Reid, Gian-Carlo Rota
Committee to Select Hour Speakers for Western Meetings: Daniel Zelinsky
Committee in Aid to Pakistani Refugee Mathematicians: Paul T. Bateman, John L. Kelley, Chairman, Ram Prakash Kanwal
Committee on Relations with Government: Garrett Birkhoff, Felix E. Browder, R. Creighton Buck, John W. Jewett, George D. Mostow, Lowell J. Paige, Chairman
Committee on Nominating Procedures: Murray Gerstenhaber, Chairman, Paul R. Halmos, Victor L. Klee, Jr.
Committee on Women in Mathematics: Mary W. Gray, I. N. Herstein, Cathleen S. Morawetz, Chairman, Charles B. Morrey, Jr., Jane Cronin Scanlon
Committee on Steele Prizes: Chen Chung Chang, Murray H. Protter, Chairman, Robert Steinberg

Committee on Arrangements for 1972 Annual Meeting in Las Vegas:
Paul Aizley, Henry L. Alder, ex officio, E. Maurice Beesley, Chairman, Michael A. Goldberg, Robert Clark Hooper, Kenneth A. Ross, ex officio, Lewis, J. Simonoff, Gordon L. Walker, ex officio, Edward F. Wishart

Committee on Arrangements for 1972 Summer Meeting at Hanover:

Tellers for the 1971 Election: Ruth M. Hailperin, Doris W. Schattschneider.

It was recorded that the following persons represented the Society at various functions:

David G. Bourgin at the Inauguration of Norman Hackerman as President of William Marsh Rice University, Houston, Texas
Nevin W. Savage at the Inauguration of John Paul Schaefer as President of the University of Arizona, Tucson, Arizona
Richard F. Johnsonbaugh at the Inauguration of Ward Pafford as President of West Georgia College, Carrolton, Georgia
Howard Sherwood at the Inauguration of John Edwin Johns as President of Stetson University, DeLand, Florida
C. Edmund Burgess at the Inauguration of Dallin Harris Oaks as President of Brigham Young University, Provo, Utah
Hussein A. Elkholy at the Inauguration of Edward J. Bloustein as President of Rutgers, the State University, New Brunswick, New Jersey.

The following persons have accepted invitations to give hour addresses at the times and places noted:

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<tr>
<th>Name</th>
<th>City</th>
<th>Date</th>
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<tbody>
<tr>
<td>James B. Ax</td>
<td>New York</td>
<td>March 1972</td>
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<td>David A. Buchsbaum</td>
<td>New York</td>
<td>March 1972</td>
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<tr>
<td>Alex Rosenberg</td>
<td>New York</td>
<td>March 1972</td>
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<tr>
<td>Gian-Carlo Rota</td>
<td>New York</td>
<td>March 1972</td>
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<td>Gilbert Baumslag</td>
<td>St. Louis</td>
<td>March 1972</td>
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<td>Allen Devinatz</td>
<td>St. Louis</td>
<td>March 1972</td>
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<td>Larry Markus</td>
<td>St. Louis</td>
<td>March 1972</td>
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<td>Wolfgang Schmidt</td>
<td>St. Louis</td>
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<td>Atle Selberg</td>
<td>St. Louis</td>
<td>March 1972</td>
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<td>Roger Richardson</td>
<td>Berkeley</td>
<td>April 1972</td>
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<td>Joseph L. Taylor</td>
<td>Berkeley</td>
<td>April 1972</td>
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<td>Peter L. Crawley</td>
<td>Seattle</td>
<td>June 1972</td>
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<tr>
<td>Donald E. Sarason</td>
<td>Seattle</td>
<td>June 1972</td>
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The Secretary reported on the result of the election of 1971. The result has subsequently been published on p. 288 of this volume of the Bulletin.

The Council elected William Browder and F. W. Gehring to positions on the Executive Committee.

The Council set the time and place of the next three Council meetings as follows:

<table>
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<tr>
<th>Location</th>
<th>Date</th>
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<tr>
<td>St. Louis</td>
<td>Friday, March 31, 1972</td>
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<tr>
<td>Hanover</td>
<td>Tuesday, August 29, 1972</td>
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<tr>
<td>Dallas</td>
<td>Wednesday, January 24, 1973</td>
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The Committee on a Comprehensive Subject Index for Mathematics presented a report. The major recommendation was the following:

We recommend that the Society undertake the periodic publication of a subject index of the current mathematical literature, covering all items appearing in Mathematical Reviews. While the Society's commitment should be reassessed after a suitable period of time, the continuation of this publication should not depend solely on that of the Mathematical Offprint Service; at the same time, procedures should be planned so as to make every possible use of activities already carried out by MOS as well as those to be instituted in connection with MR author indexes. We further recommend that subject indexes not be attempted before it has been demonstrated through successful production of MOS [now MTS, namely Mathematical Title Service] and MR cumulative author indexes that the Society has the necessary machine capability, as well as the trained personnel in both Providence and Ann Arbor.

The recommendation was approved, together with several subsidiary procedural recommendations. It was understood that the new fine classification developed for the Mathematical Offprint Service, as published in the Mathematical Reviews index number for volume 39, would be used.

The Council passed a resolution viewing with approval the efforts being made greatly to increase the coverage of applied mathematics in Mathematical Reviews. They also approved a proposal to sell subscriptions to portions of Mathematical Reviews as well as subscriptions to all of the journal.

The Council considered at length a proposal to enable nominations by petition for positions of member-at-large of the Council but finally referred the matter back to the Committee on Nominating Procedures.
The Council established an Editorial Committee for the journal Contents of Contemporary Mathematical Journals, into which the journal New Publications was recently merged.

The Council received a report by R. D. Anderson, Chairman of the Committee on Employment and Educational Policy. The report was subsequently published in the Notices for March 1972.

The Council authorized Society participation, jointly with others, in sponsorship of a session of contributed papers in the area of Bio-mathematics and Theoretical Biology at the meeting of the American Association for the Advancement of Science in December 1972 in Washington.

The Council adjourned at 6:30 P.M.

The President convened the Business Meeting at 2:45 P.M. in Rooms 2 and 3 of the Sahara Hotel Convention Center.

Professor Paul Bateman announced that the Society was receiving contributions to the Fund for Resettlement of Bangladesh Mathematicians.

The Secretary reported on recent actions of the Council of interest to the membership.

In accordance with Article X, Section 1, of the bylaws, the following resolution was on the agenda of the Business Meeting:

(1) the American Mathematical Society will work actively for equal opportunities for women in the following areas:
   (a) employment at all levels: this will include the search for and recruitment of qualified women
   (b) advancement and tenure in academic positions
   (c) admissions to graduate schools
   (d) graduate and postdoctoral fellowship and assistantships
   (e) membership on advisory boards and panels

and

(2) the Society will include more women on
   (a) Society programs and panels, including invited speakers and section chairmen.
   (b) Society committees and governing boards.

After brief discussion, the resolution was passed.

Professor E. E. Moise introduced a resolution formulated by the Mathematicians Action Group and reading as follows:

Resolved, that this meeting urges the Council of the Society to address itself with greater vigor to various problems now facing the mathematical community. These include the following.

(1) The status of women in the profession, and in various of the Society's working committees, and the status of various ethnic minority groups.

(2) The economic status of the profession, and the relation of the
profession to the colleges and universities and to society in general.

These include long range problems, and there is no reason to expect that the best efforts of anyone could solve them immediately. But the Society should attack them as best it can; we should not regard ourselves merely as spectators. Meanwhile there is a short-range problem which allows an immediate solution. Provision should be made, with no further delay, for candidates for Council membership to be placed on the ballot by petition, without any further screening either by the Council or by the nominating committee.

Following extended discussion, including a ruling that passage of the resolution was in order because it was advisory and did not constitute "final action" in the sense of Article X, Section 1, of the bylaws, the resolution was passed.

The meeting adjourned at 3:55 P.M.

BETHLEHEM, PENNSYLVANIA

EUGENE, OREGON

THE MARCH MEETING IN NEW YORK

The six hundred ninety-second meeting of the American Mathematical Society was held at the Biltmore Hotel in New York, New York, from Monday, March 27, through Thursday, March 30, 1972. There were 366 registrants including 307 members of the Society.

By invitation of the Committee to Select Hour Speakers for Eastern Sectional Meetings, there were four one-hour addresses. Professor James B. Ax of the State University of New York at Stony Brook spoke on Some topics in differential algebraic geometry; he was introduced by Professor Hyman Bass. Professor David A. Buchsbaum of Brandeis University spoke on Complexes, ideals, resolutions; he was introduced by Professor Alex Heller. Professor Alex Rosenberg of Cornell University spoke on Commutative ring theory and the structure of Witt rings; he was introduced by Professor Carl Faith. Professor Gian-Carlo Rota of the Massachusetts Institute of Technology spoke on Combinatorial theory; he was introduced by Dr. Alan J. Hoffman.

There were eighteen sessions for contributed ten-minute papers, chaired by Dr. Tadatoshi Akiba, Professors George Bachman, Donald Cook, Peter M. Curran, Robert Delver, Mr. Richard F. Freund, Professors Ter-Jeng Huang, John S. Kalme, Luise-Charlotte Kappe, Michael J. Kascic, Jr., Gary B. Laison, Elliott Mendelson, Eileen L. Poiani, Mr. John Riordan, Professor Jane Cronin Scanlon, Dr. Lawrence A. Shepp, Professors Leon Steinberg, and Donald R. Wilken.