# AMERICAN MATHEMATICAL SOCIETY 

## COUNCIL MINUTES

Washington, DC<br>17 April 1993

November 21, 1995


#### Abstract

The Council of the American Mathematical Society met at 7:00 pm on Saturday, 17 April 1993, in the Langston Room at the Howard University Inn, located at 2225 Georgia Avenue, N.W., Washington, DC, on the Howard University Campus. Members present were: Salah Baouendi, Joan Birman, Ruth Charney, Carl Cowen, David Cox, Chandler Davis, Robert Fossum, Frank Gilfeather, Ron Graham, Judy Green, Rebecca Herb, Svetlana Katok, Steven Krantz, James Lepowsky, Peter Li, Elliott Lieb, Anil Nerode, Richard Palais (representing the Bulletin Editorial Committee), Franklin Peterson, Wilfried Schmid, Lesley Sibner (Associate Secretary with vote), B.A. Taylor, Steven Weintraub, and Susan Williams.

Also present were Hyman Bass (speaking for the Committee on Science Policy), Spud Bradley (AED), Monica Foulkes (Assistant to AED), William Jaco (ED), D. J. Lewis (chair of Committee on Professional Ethics), Alice Schafer (Chair of Committee on Human Rights), and Kelly Young (Assistant to the Secretary).

President Graham presided.


## Contents

0 Call to Order and Introductions. ..... 4
0.1 Call to Order ..... 4
0.2 Introduction of New Council Members. ..... 4
1 MINUTES ..... 4
1.1 January 93 Council. ..... 4
1.2 Election to the Executive Committee. ..... 4
2 CONSENT AGENDA. ..... 4
2.1 Discharge Committees ..... 5
2.1.1 Screen Applicants from PRC ..... 5
2.1.2 Special Subcommittee to Study the Committee Structure ..... 5
2.1.3 Service to Mathematicians in Developing Countries. ..... 5
2.2 New Mathematical Society ..... 5
2.3 Hellenic Mathematical Society. ..... 5
3 REPORTS OF BOARDS AND STANDING COMMITTEES. ..... 6
3.1 EBC ..... 6
3.1.1 Colloquium Editorial Committee ..... 6
3.1.2 Mathematical Surveys and Monographs. ..... 6
3.1.3 Mathematical Reviews Editorial Committee. ..... 6
3.1.4 Proceedings Editorial Committee. ..... 6
3.2 NOMINATING COMMITTEE ..... 6
3.2.1 President-Elect: ..... 6
3.2.2 Trustee: ..... 7
3.2.3 Vice-President: ..... 7
3.2.4 Member-at-Large of the Council: ..... 7
3.2.5 Eligibility for election. ..... 8
3.3 Executive Committee and Board of Trustees (ECBT). ..... 8
3.4 Report from the Executive Director. ..... 8
3.5 Report from AMS Representative to Canadian Mathematical Society. ..... 8
4 REPORTS OF SPECIAL COMMITTEES. ..... 8
4.1 Guidelines for COPE ..... 8
4.2 Special Committee on Meetings of the Council ..... 9
4.3 Special Committee on Ethical Conduct ..... 10
5 UNFINISHED BUSINESS. ..... 10
6 NEW BUSINESS ..... 10
6.1 Mathematical Conference in Cuba. ..... 10
6.2 Amendments to the Bylaws. ..... 11
6.3 Research Announcements ..... 13
7 ANNOUNCEMENTS, INFORMATION, AND RECORD. ..... 13
7.1 Future Meetings ..... 13
7.2 Copyright Policy ..... 13
8 ADJOURNMENT. ..... 13
A Attachments: INTRODUCTIONS. ..... 14
A. 11993 Council. ..... 14
B Attachments: MINUTES ..... 15
B. 1 Attachments: Election to the Executive Committee. ..... 15
B. 2 Special Committee on Professional Conduct ..... 16
C Attachments: ANNOUNCEMENTS, INFORMATION, AND RECORD ..... 20
C. 1 Future Meetings. ..... 20

## 0 Call to Order and Introductions.

### 0.1 Call to Order.

President Graham opened the meeting at 7:08 PM by introducing the Council.

### 0.2 Introduction of New Council Members.

Newly elected or appointed members of the Council took office on 01 February 1993 and they are:

Vice-President:
Members-at-Large:

Anil Nerode
Svetlana R. Katok
Steven Krantz
Peter Li
James I. Lepowsky
Susan Gayle Williams

Representatives of Committees

Bulletin Editorial Committee
Mathematical Reviews Editorial Committee

Murray Protter, Chair
Philip J. Hanlon, Chair

A complete list of the 1993 Council is attached (Attachment A.1).

## 1 MINUTES

### 1.1 January 93 Council.

The Minutes of the January 93 Council were approved.

### 1.2 Election to the Executive Committee.

The Council conducted an election for a member to serve on the Executive Committee (EC). Member-at-Large John Franks was elected to a four year term on the EC. The attached minute was approved (see Attachment B.1).

## 2 CONSENT AGENDA.

Items appearing on the Consent Agenda will be considered approved unless brought to the floor for discussion. In which case they must be approved in the usual manner. ${ }^{1}$

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### 2.1 Discharge Committees.

### 2.1.1 AMS-SIAM Committee to Screen Applicants for Graduate Study from the People's Republic of China.

The work of this committee, to screen applicants from China for graduate study in the United States, is over. The committee has not met in several years and has no plans to do so in the future. This committee was discharged with thanks.

### 2.1.2 Special Subcommittee to Study the Committee Structure.

This committee completed its charge by reporting to the January 1993 and was discharged with thanks.

### 2.1.3 Service to Mathematicians in Developing Countries.

The January 1993 Council approved the establishment of a standing Committee on International Affairs. In approving this committee, the Council also recommended that the various committees that have been established to carry out portions of our international communications should be discharged. Accordingly the Committee on Service to Mathematicians in Developing Countries was discharged with thanks.

### 2.2 New Mathematical Society

[This item was moved out of the Consent agenda to New Business where it was discussed.]
The newly formed Palestine Society of Mathematical Sciences will hold its first general meeting 16-19 June 1993 in Jerusalem and Ramallah. International participation is invited. It was moved, seconded and passed to send the following greetings:

The Council of the American Mathematical Society welcomes the formation of the Palestine Society of Mathematical Sciences and extends congratulations to its inaugural meeting. It hopes for many years of fruitful cooperation between the societies in the furtherance of mathematical research, education, and scientific exchange.

### 2.3 Hellenic Mathematical Society.

The Hellenic Mathematical Society is celebrating the 75th anniversary of its founding this year. It has invited a representative of the Society to attend one of its scientific meetings during this year. On the occasion of this special year, the Council approved the following greetings:

The Council of the American Mathematical Society congratulates the Hellenic Mathematical Society on the occasion of the completion of seventyfive years of active scientific contributions to the international and Hellenic mathematical communities.

The Council looks forward to cooperating with the Hellenic Mathematical Society in continuing efforts to attain common goals within the mathematical sciences.

## 3 REPORTS OF BOARDS AND STANDING COMMITTEES.

### 3.1 EDITORIAL BOARDS COMMITTEE (EBC). [EXECUTIVE SESSION]

The Editorial Boards Committee recommended appointments of several editors. These appointments were considered in Executive Session, approved by the Council, and are as follows:

### 3.1.1 Colloquium Editorial Committee.

The appointment of WILLIAM BROWDER to a regular three year term on the Colloquium Editorial Committee, with term beginning upon appointment and ending on 31 January 1996. (Browder replaces Keisler, whose term expired.)

### 3.1.2 Mathematical Surveys and Monographs.

The reappointment of ROBERT GREENE to a three year term.

### 3.1.3 Mathematical Reviews Editorial Committee.

The appointment of J.-L. LODAY (U Strasbourg, France) as an extra member until 31 January 1994, then to replace Weinberger as a regular member for a three year term beginning 01 February 1994.

### 3.1.4 Proceedings Editorial Committee.

The appointment of LINDA KEEN as Coordinating Editor for ODE, PDE, Global Analysis, Dynamical Systems with term starting 01 February 1994 (to replace B. Keyfitz).

### 3.2 NOMINATING COMMITTEE

The Nominating Committee recommended nominations of candidates for election in the 1993 Election. These were considered in Executive Session, approved by the Council, and are as follows:

### 3.2.1 President-Elect:

The individual elected to the position of President-Elect serves for one year in that position (in this instance from 01 February 1994 until 31 January 1995), then two years as President, and then a year as Ex-President. The Nominating Committee has been asked by the Council to nominate two candidates for election to this position. In addition, the Council has requested that the Nominating Committee recommend a Nominator for each candidate. The duty of the Nominator is to write an article about the candidate for publication in the Notices.

The Nominating Committee recommended
CATHLEEN MORAWETZ, New York University, with ANDREW MAJDA as Nominator, and

HYMAN BASS, Columbia University, with John W. MILNOR as Nominator.
as candidates for election to the position of President-Elect.

### 3.2.2 Trustee:

The Nominating Committee recommended the nomination of
DON LEWIS, Michigan, and
MARC RIEFFEL, University of California, Berkeley,
for election to one position as Trustee for a term of five years beginning on 01 February 1994.

### 3.2.3 Vice-President:

The Nominating Committee recommended the nomination of
JERRY BONA, Penn State University, and RAMESH GANGOLLI, University of Washington-Seattle,
for election to one position as Vice-President for a term of three years commencing on 01 February 1994.

In addition, the Secretary had received the requisite number of valid signatures from members and the agreement of the candidate to recommend the nomination of

JEAN TAYLOR, Rutgers University,
for election to the same position.

### 3.2.4 Member-at-Large of the Council:

The Nominating Committee recommended the nomination of
EDWARD BIERSTONE, University of Toronto,
JAMES W. CANNON, Brigham Young University,
DENNIS DETURCK, University of Pennsylvania,
ROBERT K. LAZARSFELD, UCLA
FRANK MORGAN, Williams College,
JILL C. PIPHER, Brown University,
DONALD St. P. RICHARDS, University of Virginia,
NORBERTO SALINAS, University of Kansas,
SYLVIA WIEGAND, University of Nebraska, and
ROBERT J. ZIMMER, University of Chicago
for election to five positions as Member-at-Large of the Council for a term of three years beginning on 01 February 1994. (There were no petitions suggesting nomination to this position.)

All nominations were approved by the Council.

### 3.2.5 Eligibility for election.

During its deliberations and searches for candidates for the upcoming elections, the Nominating Committee considered possible candidates who do not reside in North America. Rather than confront the issue of nominating such candidates by actually doing so, the Nominating Committee decided to put the question to the Council. It asked the Council to instruct the Nominating Committee on the question as to whether the Council will consider nominations for election of members of the Society who do not reside in North America.

It was moved and seconded to send to the Nominating Committee the following statement:
Any member in good standing of the Society is eligible for candidacy and election to office or for membership on committees of the Society. In particular, residence in North America is not a prerequisite for candidacy for nomination for an office in the Society or for membership on committees of the Society.

An amendment to revise the resolution to add

In all cases, the Nominating Committee will obtain assurances that candidates nominated will agree to serve if elected.
was defeated. The resolution then passed.

### 3.3 Executive Committee and Board of Trustees (ECBT).

Neither the Executive Committee nor the Board of Trustees had met since the last meeting of the Council and so there was no business to report.

### 3.4 Report from the Executive Director.

The Executive Director, William H. Jaco, gave his annual report to the Council.

### 3.5 Report from AMS Representative to Canadian Mathematical Society.

Vice-President Davis, the official representative from the AMS to the CMS, has filed a report which is filed in the AMS Committee Report Book for 1993, Report No. 930617-01.

## 4 REPORTS OF SPECIAL COMMITTEES.

### 4.1 Special Committee on Guidelines and Procedures for the Committee on Professional Ethics.

The guidelines and procedures were adopted by the January 1993 Council subject to review by Society counsel. The Council determined that those part of the procedures concerning election of members to the Committee on Professional Ethics will apply immediately to future committees. The comments will be returned to the special Committee on Guidelines and Procedures for a report to a future Council.

### 4.2 Special Committee on Meetings of the Council.

A special committee had been appointed early in 1993 to consider when the Council should meet. The committee consisted of Joan Birman, Robert Fossum, Frank Peterson, and Steve Weintraub. The committee considered several questions.

- What portion of a Council member's travel and subsistence should be reimbursed by the Society?
- Should there be any kind of restriction on types of airfares that are reimbursed?
- When and where should the Council meet in January?
- When and where should the Council meet in the Spring?
- When and where should the Council meet in the late summer?
- When should the Council meet at the meeting in Vancouver?

Following a report of the committee and some discussion, the Council adopted the following recommendations:

Reimbursements: As a temporary policy, in effect until the Society adopts a general reimbursement policy, members attending Council meetings should be reimbursed for airfares not exceeding supersaver fares, not more than $\$ 75$ for ground transportation, and one night lodging. Exceptions can be made by requesting approval from the Secretary prior to the travel.

All efforts will be made to schedule meetings so that supersaver fares can be used. Reference to supersaver fares will be continued as long as they exist.

Spring Meetings of the Council. Meetings of the Council in the Spring should be held on a Saturday beginning in the afternoon. If the agenda cannot be completed before early evening, the meeting should continue on Sunday morning. In the event that there is not a convenient sectional meeting near a transportation center, then this Spring Council meeting should be held at or near an airline hub so that members can conveniently arrive at and depart from the meeting.

Meeting in Vancouver, BC. The Council will meet on Saturday 14 August 1993 beginning at 1:00 pm.

Meeting in Minneapolis in August 1994. The Council is scheduled to meet on Sunday, 14 August 1994, from 1:00 PM until the evening, with supper included.

Meeting in Cincinnati (and other Annual Meetings): The Council will meet on Tuesday, 11 January 1994, beginning at 1:00 PM, in Cincinnati, Ohio.

Meetings at other Annual Meetings: The Council will meet on a day of the weekend of an Annual Meeting that is nearest to the first or last day of the meeting. (Under the current schedule, the Council would meet on a Saturday.)

### 4.3 Special Committee on Ethical Conduct

A special committee consisting of Chandler Davis, Chair, Lee D. Mosher, and Frank S. Quinn was appointed by then President Artin to make findings and recommendations to the Council on the complaint of Richard K. Skora. The final report of this committee is attached (see Attachment B.2, a copy of which is on file in the AMS Committee Report Book for 1993, Report No. 930615-01,). Chair Davis presented the report. The Council accepted the report with thanks and requested that the Secretary publish the report in the Notices and send copies to the Principals along with the minutes of this Council.

The committee was discharged with thanks.

## 5 UNFINISHED BUSINESS.

There was no unfinished business.

## 6 NEW BUSINESS

### 6.1 Mathematical Conference in Cuba.

The Second International Conference on Approximation and Optimization is being held in Havana, Cuba, in the period 26 September to 01 October 1993. The Council endorsed the following resolution (without dissent).

The Council of the AMS, in accordance with its established practice of supporting the free circulation of scientists, calls upon the US Administration to permit all US mathematicians wishing to participate in the "Second International Conference on Approximation and Optimization" (Havana, Cuba, September 26-October 1, 1993) to do so and to authorize them to participate in the same fashion as would be normal were the conference to be held in another country. This includes their right to attend without being "fully hosted".
The Society officers are to approach promptly the appropriate officers of the US State and Treasury Departments (the agencies administering the present US government policy) and to secure the support of the Science Advisor to President Clinton.

These officials, in addition to being made aware of the general issues involved should be informed that this Conference is sponsored by the Third World Academy of Sciences and by the International Mathematical Union. The US is repre $\Omega$ sented in the IMU and in it supports the policy of free circulation of scientists. Further, a blanket licence to attend should be sought without requiring individuals to apply one by one for permission.

### 6.2 Amendments to the Bylaws.

The January 1993 Council adopted the report of the special Committee on Restructuring that suggested that the Council eliminate the Committee to Monitor Problems in Communication. Accordingly the Secretary drafted amendments that would eliminated mention of that committee in the Bylaws.

The following amendments would remove mention of the Committee to Monitor Problems in Communication, but would leave the Chair of the Committee on Science Policy on the Council. (Deletions are indicated by $\mathrm{d} \boldsymbol{\ell} \boldsymbol{\chi} \notin \notin \ell$ e and additions are indicated by add.

Article III, Committees Section 1. There shall be nine editorial committees as follows: committees for the Bulletin, for the Proceedings, for the Colloquium Publications, for the Journal, for Mathematical Surveys and Monographs, for Mathematical Reviews; a joint committee for the Transactions and the Memoirs; a committee consisting of the representatives of the Society on the Board of Editors of the American Journal of Mathematics; and a committee for Mathematics of Computation.

Section 2. There shall be a Science Policy Committee.




Section 3. The size of each committee shall be determined by the Council.

Article IV, Council Section 1. The Council shall consist of fifteen members-at-large and the following ex officio members: the officers of the Society specified in Article I, except that it shall include only one associate secretary, the chairman of each of the

 former secretary for a period of two years following the terms of office, and members of the Executive Committee (Article V) who remain on the Council by the operation of Article VII, Section 4. and of the Science Policy Committee

Article VI, Executive Director Section 3. The Executive Director shall work under the immediate direction of a committee consisting of the president, the secretary, and the treasurer, of which the president shall be chairman ex officio. The Executive Director shall attend meetings of the Board of Trustees, the Council, and the Executive




 shall be appointed by the Council in a manner designated by the Council.

Article XII will be deleted and the remaining articles numbered accordingly.

These amendments to the Bylaws were moved and seconded. It was moved, seconded and passed to substitute these amendments with the following amendments:

Article III, Committees Section 1. There shall be nine editorial committees as follows: committees for the Bulletin, for the Proceedings, for the Colloquium Publications, for the Journal, for Mathematical Surveys and Monographs, for Mathematical Reviews; a joint committee for the Transactions and the Memoirs; a committee consisting of the representatives of the Society on the Board of Editors of the American Journal of Mathematics; and a committee for Mathematics of Computation.
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 former secretary for a period of two years following the terms of office, and members of the Executive Committee (Article V) who remain on the Council by the operation of Article VII, Section 4.

Article VI, Executive Director Section 3. The Executive Director shall work under the immediate direction of a committee consisting of the president, the secretary, and the treasurer, of which the president shall be chairman ex officio. The Executive Director shall attend meetings of the Board of Trustees, the Council, and the Executive




 shall be appointed by the Council in a manner designated by the Council.




(Article XII will be deleted and the remaining articles numbered accordingly.)

These amendments were approved and forwarded to the members in the 1993 election for approval by the membership.

### 6.3 Research Announcements.

Frank Quinn submitted the resolution below for discussion and action.
The Research Announcements section of the Bulletin will be discontinued. A new section entitled "Research News" will be initiated, located in the Notices pending the reorganization of Membership Publications by CRMP. This section is to be reader-oriented, and written by "mathematical journalists" not directly involved in the research. The objective is to communicate new research broadly to the membership, to promote a content-based sense of community among mathematicians, and promote an awareness of the vitality and diversity of mathematical research.

This resolution was tabled.

## 7 ANNOUNCEMENTS, INFORMATION, AND RECORD.

### 7.1 Future Meetings

See the listing in Attachment C. 1

### 7.2 Copyright Policy

This issue was to be considered by this Council. The chair of the Board of Trustees, John Polking, appointed a committee of the BT to consider the matter. Paul Sally was appointed chair of that committee. Shortly after the committee was appointed, Sally resigned because of health problems. Andrew Odlyzko has been appointed chair of this committee.

## 8 ADJOURNMENT.

The Council adjourned at about 11:10 PM.
Respectfully submitted:
Robert Fossum
Urbana, Illinois

## A Attachments: INTRODUCTIONS.

A. 11993 Council.

| AMERICAN MAT | HEMATICAL SOCIET ve $2 / 01 / 93$ COUNCIL |  |
| :---: | :---: | :---: |
| Ronald L. Graham | Secretary | Robert M. Fossum |
| Michael Artin | Associate Secretaries | Robert Daverman |
| Chandler Davis |  | Andy Roy Magid |
| Linda Keen |  | Lesley Sibner |
| Anil Nerode |  | Lance W. Small |
| F. P. Peterson | Associate Treasurer | B. A. Taylor |

Representatives of Committees

Bulletin Editorial Committee
Colloquium Editorial Committee
Committee to Monitor Problems in Communications
Journal of the American Mathematical Society
Mathematical Reviews Editorial Committee
Mathematical Surveys Editorial Committee
Mathematics of Computation Committee
Proceedings Editorial Committee
Representative on American Journal
Science Policy Committee
Transactions and Memoirs Committee
Executive Committee
Executive Committee

Murray Protter, Chair<br>G. D. Mostow, Chair Judy Green, Chair Wilfried Schmid, Chair<br>Philip J. Hanlon, Chair<br>Marc A. Rieffel, Chair<br>Walter Gautschi, Chair<br>Irwin Kra, Chair<br>M. Salah Baouendi<br>Frank W. Warner III, Chair<br>James E. Baumgartner, Chair Joan Birman<br>Arthur Jaffe

Members at Large

Ruth M. Charney
John M. Franks
Svetlana R. Katok
Elliott H. Lieb
Steven H. Weintraub

Roy Adler
M. Susan Montgomery Paul Sally, Jr.

Carl C. Cowen, Jr.
Frank Gilfeather
Steven Krantz
James K. Lepowsky
Ruth J. Williams
Trustees
Ronald Graham Maria M. Klawe
F.P. Peterson John C. Polking
B.A. Taylor

David A. Cox
Rebecca A. Herb
Peter Li
Gunther A. Uhlmann
Susan Gayle Williams

## Executive Committee

Michael Artin
Robert M. Fossum
M. Salah Baouendi Joan Birman

John M. Franks Ronald Graham
Arthur Jaffe

## B Attachments: MINUTES

## B. 1 Attachments: Election to the Executive Committee.

AMERICAN MATHEMATICAL SOCIETY

## COUNCIL

## BUSINESS BY MAIL

07 April 1993
Robert Fossum
The Council conducted its annual election of a member to the Executive Committee. Members Ronald L. Graham, Chandler Davis, Linda Keen, Franklin Peterson, B. A. Taylor, Robert Fossum, Judy Green, Marc A. Rieffel, Walter Gautschi, Salah Baouendi, Frank W. Warner, Joan Birman, Ruth M. Charney, Carl C. Cowen, Jr. David A. Cox, John M. Franks, Rebecca A. Herb, Svetlana R. Katok, Steven Krantz, James I. Lepowsky, Peter Li, Elliott H. Lieb, Gunther A. Uhlmann, Ruth J. Williams, and Susan Gayle Williams, returned valid ballots. There were three ballots returned in unsigned envelopes and one returned ballot was invalid.

An ad hoc nominating committee appointed by President Graham, consisting of Alice Chang and Hugo Rossi, considered the replies to the inquiries concerning willingness to stand for election and suggestions for candidates from the members of the 1993 Council. It submitted the following report:

The committee nominates Council members CARL C. COWEN and JOHN M. FRANKS as candidates for election by the Council to the Executive Committee for a term of four years.

There were seven votes (7) for Carl Cowen and seventeen (17) votes for John Franks. There was one abstention. Therefore John Franks is declared the winner and is elected to a four year term as a member of the Council's Executive Committee. His term begins on 01 February and ends when a replacement is elected in March 1997.

## B. 2 Special Committee on Professional Conduct

April 1993

## Report on the Skora-Sundheim Controversy

## Introduction

This Committee was instructed to make findings and recommendations to Council on the complaint of Richard K. Skora. We have spoken with Dr Skora, Dr Paul A. Sundheim, Professor Cameron M. Gordon, and others involved in the dispute. We have studied all the mathematical papers in question, including unpublished preprints; we have read the files provided by the AMS's Committee on Professional Ethics and the Inquiry Report prepared at the University of Texas.

## History of the Case

This report can be brief because we require no difficult weighing of conflicting testimony. The issues as we see them can be resolved using facts on which all parties now agree.

The dispute concerns the thesis and subsequent papers of Paul Sundheim, who was a student of Cameron Gordon at the University of Texas. The subject of his thesis had been studied earlier by Richard Skora, and it is this overlap that is at issue. Specifically, we are called on to judge whether Sundheim's thesis and papers gave inadequate recognition of Skora's priority.

Knots and links are 1 -manifolds regarded as imbedded in 3 - manifolds; i.e., two of them are equivalent if one can be obtained from the other by an isotopy of the containing 3 -manifold. In the classical theory, the 3-manifold is S3. In 1986 or 1987, Skora embarked on the extension of some central classical results to knots imbedded in general 3-manifolds. Gordon, unaware of this, suggested the same area of research to Sundheim, who had passed his qualifying examination in August 1987.

The first of these classical results is Markov's Theorem. Links in the 3 -sphere are all obtainable up to isotopy as closed braids (Alexander's Theorem). Markov's Theorem tells when two closed braids are isotopic: one must be obtainable from the other by "Markov moves," a small inventory of special transformations. The reference given for a full development of this theory is Joan Birman, Braids, Links and Mapping Class Groups, 1974. Skora gave the generalization in a preprint which was circulated in October 1988, and in particular was sent to Gordon and Sundheim. Skora's proof imitates that in Birman's book, and the conclusion is a generalization of Markov's; the main complication is that one does not -can not- begin the definition of a braid by reference to an unknotted closed curve.

The second of the classical results is Reidemeister's Theorem. This tells how to recognize any equivalence between two links in S3 in a standard way from their "diagrams" -the pattern of over- and under-crossings they yield following a projection (of R3) to a disk. A small inventory of "Reidemeister moves," particular transformations of diagrams, is specified, and the theorem states that two links are equivalent if and only if the diagram of one can be taken to the diagram of the other by a sequence of Reidemeister moves. Skora gave the generalization in a preprint which was circulated in December 1988, in particular to Gordon and Sundheim. The definition of diagram is not so straightforward as in the classical case, but uses ideas which have been around for many
years. The result differs from the classical result: a new Reidemeister move must be introduced. The classical Reidemeister moves involve local changes in the diagram; the new move is not capable of localization.

Sundheim had begun work on these matters before receiving the preprints. His generalization of the Markov Theorem appeared in preprint form in October 1989; of the Reidemeister Theorem, in April 1989, revised in January 1990. His thesis was approved in May 1990.

Both authors have had manuscripts rejected or returned for revision on these subjects. However, Skora's "Closed braids in 3- manifolds," on his generalized Markov Theorem, is forthcoming in Math. Zeitschrift; Skora's "Knot and link projections in 3- manifolds," on his generalized Reidemeister theorem (final revision May 1990) appeared in Math. Zeitschrift 206 (1990), 345-350; Sundheim's "The Alexander and Markov Theorems via diagrams for links in closed orientable 3manifolds" is forthcoming in Trans. Amer. Math. Soc.; and Sundheim's "Reidemeister's theorem for 3- manifolds" (final revision May 1990) appeared in Math. Proc. Camb. Phil. Soc. 110 (1991), 281-292. We found no significant divergences between Sundheim's thesis and the papers based on it, or for that matter between early and late versions of the papers of either author.

In 1989 and 1990, Skora several times pointed out privately to Gordon that Sundheim's presentation of these results required acknowledgement of Skora's priority. Beginning in January 1991, Skora complained formally to the University of Texas and the American Mathematical Society that Sundheim was incorrectly representing the two theorems as new work whereas he had learned them from Skora's preprints. The Society's Committee on Professional Ethics submitted a report in September 1991, recommending "that it be suggested to Sundheim that in the interests of amity he make a stronger statement giving priority to Skora, even though he has already given Skora proper credit." Indeed, Sundheim and Gordon declared to COPE their willingness to acknowledge Skora's priority. (This aspect is examined in detail below.) However, Skora was dissatisfied with the implication he saw in COPE's wording that the "stronger statement giving priority" was needed only to assuage his hurt feelings; he complained vigorously both to the Society and to the University of Texas. The present report is the outcome of the Society's reconsideration of the matter. Meanwhile, the University conducted interviews and assembled a lengthy report, which remains confidential but which we were permitted to read. This report, on behalf of the Department of Mathematics and the Graduate School, concluded that "the charges against Dr. Cameron M. Gordon and his student, Dr. Paul Arnold Sundheim are without foundation."

As we stated at the outset, there are no substantive disagreements remaining about the facts. What makes the clash seem sharp is that the word "plagiarism" has been used by Skora and some sympathizers. But this word in common language means "taking another's ideas and presenting them as one's own," so that applied to Sundheim it sounds like an accusation that he presented in his thesis and papers proofs he had copied from Skora, in the guise of new proofs of his own. This accusation could not be sustained. Letters by Dr Skora and Professor Gordon since 1991 have agreed in stipulating that Sundheim's proofs were different, though there may be disagreement on how essential their novelty was.

Sundheim's proof of the generalized Markov Theorem uses a technique of H.R. Morton called threading of a diagram, mentioned but bypassed in Skora's paper. Morton's paper was on Sundheim's reading list before he heard of Skora's work, and he was probably committed to this line of proof. Sundheim's new Reidemeister move is somewhat different from Skora's, a simplification which streamlines Skora's proof is not used in his, and the induction on which he re $\Omega$ lies has no counterpart in Skora's proof.

In short, there is no indication that Sundheim was influenced by the 1988 preprints, or even that he read them. He did know they existed; they were available to him, and he acknowledges that they were. He had the reinforcement of knowing the results were true, but he set out to find for himself why they were. He could have presented his thesis as new proofs of theorems of Skora; whether its novelty is sufficient to give his work interest is a question for his thesis committee and the editors receiving his papers, not for this Committee. When one presents a new proof of a known result, one may enhance the value of the exposition to the reader by commenting on the differences from the predecessor's approach, and Sundheim did not do this; the question of whether such comment was needed here might be subject to judgement by thesis committee or editors, but is not before this Committee.

The case would be altogether different if Sundheim had essentially proved the theorems before Gordon and he received the Skora proofs. He had done some work. To assess it at this late date is perhaps impossible. What we can say (and it is sufficient basis for excluding this 1988 work from our considerations) is that by Sundheim's own account it did not comprise publicly presentable proofs and it had not been communicated to Gordon or anyone else.

There remains the matter of attribution. The Sundheim thesis, May 1990, says
Similar results have been independently discovered by Richard Skora using other methods
and refers to Skora's 1988 preprints without giving any date for them. Sundheim's paper in Proc. Camb. Phil. Soc. says

This result was also obtained previously and independently by Richard Skora
and refers to the appropriate preprint giving the wrong date: 1991 instead of 1988 (though this paper's final revision is said to have been received also in May 1990).

Skora's papers and preprints do not mention Sundheim. The obligation was evidently less in this direction; still, it is normal practice in such a case to refer to other treatments.

## Conclusions

We concur with the formulation of the AMS Committee, 13 September 1991, that by that date the only difference between the parties was that Sundheim
claims a higher level of independence of his work than Skora would allow him, though he cedes the priority to Skora.

We concur also that a proper form of citation would have been the following, cited by that report and agreeable to both parties:

A generalization of the Markov [resp. Rademacher] Theorem was proved first by Richard Skora [...] (1988). Here we give a different proof [...].

More remains to be said.
To give an accurate report of the sources and publication of an idea is the responsibility of the author of a public scholarly paper. The potential damage from the inadequacy of Sundheim's report was small, but the responsibility was there; it was incumbent on Professor Gordon as thesis
director to make this responsibility clear to Sundheim and to ensure that it was discharged in the official version of the thesis as accepted by the University.

We are aware that lapses of this sort, even more serious ones, often occur, and are often ignored. This particular incident came to wide public attention only because Skora's doggedness and at times his overstatements kept it salient.

The responsibility to tell a reasonably accurate life story of a theorem serves several purposes. Omitting the story can create the inaccurate impression of independence from previous work, slighting the work done by others. But this responsibility is not just a courtesy to placate rivals. The object is to lay down in the literature a correct record, for the sake of readers. It is therefore a responsibility to the profession, and the Society shares the duty to preserve it.

Committee on Ethical Conduct

Lee D. Mosher
Frank S. Quinn
Chandler Davis (Chair)

## C Attachments: ANNOUNCEMENTS, INFORMATION, AND RECORD

## C. 1 Future Meetings.

| DATE | MEETING | SITE |
| :---: | :---: | :---: |
| June 29, 1993 | AAUP 48th Annual Meeting | Salt Lake City/ Snowbird, UT |
| July 10-11, 1993 | MSEB Exec Committee Meeting | Washington, DC |
| July 10-August 6, 1993 | Joint Summer Research Conf. | Seattle, WA |
| July 11-15, 1993 | 2nd World Congress on Neural Networks (cosponsored by AMS) | Portland, OR |
| July 11-30, 1993 | AMS Summer Institute | Ithaca, NY |
| July 12-16, 1993 | SIAM Annual Meeting | Philadelphia, PA |
| July 20-23, 1993 | CESSE Annual Meeting | Baltimore, MD |
| August 9-13, 1993 | AMS Symposium on Math of Computation | Vancouver, BC, Canada |
| August 14, 1993 | LRPC Meeting | Vancouver, BC, Canada |
| August 14, 1993 | AMS Council (1:00 PM) | Vancouver, BC, Canada |
| August 15-19, 1993 | AMS-MAA-CMS Summer Meeting | Vancouver, BC, Canada |
| September 17-19, 1993 | CSP/COE Meeting | Washington, DC |
| September 18-19, 1993 | AMS Sectional Meeting | Syracuse, NY |
| September 30, 1993 | MSEB Exec Com Meeting | Washington, DC |
| October 1-2, 1993 | MSEB Board Meeting | Washington, DC |
| October 1-3, 1993 | AMS/DMV Meeting | Heidelberg, Germany |
| October 15-17, 1993 | Second International Conference on Ordinal Data Analysis (cosponsored by AMS) | Amherst, MA |
| October 15 \& 17, 1993 | ABC Meeting | Providence, RI |
| October 16, 1993 | LRPC Meeting | Providence, RI |
| October 21, 1993 | MREC Meeting | Ann Arbor, MI |
| October 22, 1993 | JPBM Meeting | Washington, DC |
| October 22-23, 1993 | AMS Sectional Meeting © Texas A\&M Univ. | College Station, TX |
| October 28-29, 1993 | BMS Meeting | Arlington, VA |
| October 29-30, 1993 | BMS Chairs Colloquium | Arlington, VA |
| November 5-7, 1993 | SUMMAC Meeting, MAA | Washington, DC |
| November 6-7, 1993 | AMS Sectional Meeting <br> © Harvey Mudd College | Claremont, CA |
| November 19-21, 1993 | ECBT | Providence, RI |

November 20, 1993
December 2-4, 1993

December 5-7, 1993
January 11, 1994
January 12-15, 1994
January 21, 1994
January 26-28, 1994
January 27, 1994
January 28-29, 1994
February 5-8, 1994
March 4-6, 1994
March 9-12, 1994
March 12, 1994
March 18-19, 1994
March 19-20, 1994
March 25-26, 1994

April 9-10, 1994
April 21-23, 1994
May 12, 1994
May 13-14, 1994
May 20-22, 1994
June 11-16, 1994
June 16-18, 1994

June 24-25, 1994
July 19-22, 1994
July 25-29, 1994
August 3-11, 1994
August 14, 1994


August 15-17, 1994

September 29, 1994
September 30-
October 1, 1994
October 10-16, 1994 TENT
October 15-16, 1994
October 28-29,1994

November 11-13, 1994

November 18-20, 1994
November 19, 1994
January 4-7, 1995
January 7, 1995
January 25-27, 1995
January 26, 1995
January 27-28, 1995

March 4-5, 1995

March 11, 1995
March 17-18, 1995

March 24-25, 1995

May 18, 1995
May 19-20, 1995
May 19-21, 1995 TENT

June 10-15, 1995
June 23-24, 1995

October 5, 1995
October 6-7, 1995

November 3-4, 1995

November 17-19, 1995 TENT

November 18, 1995

AMS-MAA Summer Mathfest © Univ. of Minnesota

MSEB Exec Com Meeting Washington, DC

MSEB Board Meeting
AMS-MIT Wiener Conference
ABC Meeting
AMS Sectional Meeting @ Oklahoma State Univ.

AMS Sectional Meeting
@ Univ. of Richmond ECBT Meeting
MSEB Exec Com Meeting
AMS-MAA Annual Meeting
AMS Council Meeting
SLA Winter Meeting
MSEB Exec Com Meeting
MSEB Board Meeting

AMS Sectional Meeting
@ Univ. of Connecticut
MSEB Exec Com Meeting
AMS Sectional Meeting
@ Univ. of Central Florida
AMS Sectional Meeting
@ DePaul Univ.

MSEB Exec Com Meeting
MSEB Board Meeting
ECBT Meeting

SLA Annual Conference
MSEB Exec Com Meeting

MSEB Exec Com Meeting
MSEB Board Meeting

AMS Sectional Meeting
© Kent State Univ.
ECBT Meeting

MSEB Exec Com Meeting

Minneapolis, MN

Washington, DC
Cambridge, MA
Providence, RI
Stillwater, OK

Richmond, VA

Providence, RI
Washington, DC
San Francisco, CA
San Francisco, CA
Raleigh-Durham, NC
Washington, DC
Washington, DC

Hartford, CT

Washington, DC
Orlando, FL

Chicago, IL

Washington, DC
Washington, DC
??

Montreal, Canada
Washington, DC

Washington, DC
Washington, DC

Kent, OH

Providence, RI

Washington, DC

January 10-13, 1996
January 13, 1996
January 24-26, 1996

March 22-23, 1996

April 19-21, 1996

May 17-19, 1996 TENT

AMS-MAA Annual Meeting Orlando, FL
AMS Council
SLA Winter Meeting

AMS Sectional Meeting
@ Univ. of Iowa

AMS Sectional Meeting @ Louisiana State Univ.

ECBT Meeting

Orlando, FL
Cleveland, OH

Iowa City, IA

Baton Rouge, LA
??

DATE

June 8-13, 1996

November 22-24, 1996 TENT

January 8-11, 1997
January 11, 1997

May 16-18, 1997 TENT

June 7-12, 1997

November 21-23, 1997 TENT
January 13-16, 1999
January 16, 1999

MEETING

SLA Annual Conference

ECBT Meeting

AMS-MAA Annual Meeting
AMS Council

ECBT Meeting

SLA Annual Conference

ECBT Meeting

AMS-MAA Annual Meeting AMS Council

SITE

Boston, MA

Providence, RI

San Diego, CA
San Diego, CA
??

Seattle, WA

Providence, RI

San Antonio, TX San Antonio, TX


[^0]:    ${ }^{1}$ An item in the Consent Agenda is considered approved unless the Council agrees to discussion of the item. (Items on the Consent Agenda for the Executive Committee may be brought to the floor for discussion by two members of the committee.) According to Sturgis Standard Code of Parliamentary Procedure, which governs meetings of the Council, "Any member has a right to remove any item from the consent agenda so that it may be considered and voted on separately. The remaining items are then unanimously approved en bloc without discussion ...."

