



Council Agenda

Providence, RI

11 May 2024

8:30 a.m.-2:30 p.m. EDT

The AMS Council will be meeting on May 11, 2024 from 8:30 a.m.-2:30 p.m. EDT at the AMS Headquarters, 201 Charles Street, Providence, Rhode Island.

Several items will be discussed in Executive Session including candidates for the 2024 election and presidential candidates for 2025. Also, Council will be considering appointments for:

- Managing Editor of *Journal of the AMS*
- Managing Editor of *Transactions of the AMS*
- Managing Editors of *Communications of the AMS*
- Chair of the *Colloquium* Editorial Committee.

President Bryna Kra and Secretary Boris Hasselblatt ask Council members to read the agenda before the meeting begins, as there will not be enough time during the meeting itself to go through the material carefully. They also request that all motions and amendments occurring during the meeting be written out by the proposer.

Prepared April 26, 2024

Updated April 29, 2024

Return to Item 1.2

AMS Mission Statement

The AMS, founded in 1888 to further the interests of mathematical research and scholarship, serves the national and international community through its publications, meetings, advocacy and other programs, which

- promote mathematical research, its communication and uses,
- encourage and promote the transmission of mathematical understanding and skills,
- support mathematical education at all levels,
- advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals,
- foster an awareness and appreciation of mathematics and its connections to other disciplines and everyday life.

Return to Item 1.3.1

Conflict of Interest Policy for Officers and Committee Members *(as approved by the January 2007 Council)*

A conflict of interest may exist when the personal interest (financial or other) or concerns of any committee member, or the member's immediate family, or any group or organization to which the member has an allegiance or duty, may be seen as competing or conflicting with the interests or concerns of the AMS.

When any such potential conflict of interest is relevant to a matter requiring participation by the member in any action by the AMS or the committee to which the member belongs, the interested party shall call it to the attention of the chair of the committee and such person shall not vote on the matter. Moreover, the person having a conflict shall retire from the room in which the committee is meeting (or from email or conference call) and shall not participate in the deliberation or decision regarding the matter under consideration.

The foregoing requirements shall not be construed as preventing the member from briefly stating his/her position in the matter, nor from answering pertinent questions of other members.

When there is a doubt as to whether a conflict of interest exists, and/or whether a member should refrain from voting, the matter shall be resolved by a vote of the committee, excluding the person concerning whose situation the doubt has arisen.

Minutes of the meeting of the committee shall reflect when the conflict of interest was disclosed and when the interested person did not vote.

Return to Item 1.3.2

Equity, Diversity and Inclusion Statement
(as adapted by the April 2019 Council)

The American Mathematical Society is committed to promoting and facilitating equity, diversity and inclusion throughout the mathematical sciences. For its own long-term prosperity as well as that of the public at large, our discipline must connect with and appropriately incorporate all sectors of society. We reaffirm the pledge in the AMS Mission Statement to "advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals," and urge all members to conduct their professional activities with this goal in mind.

Return to Item 1.3.3

AMS Policy on a Welcoming Environment
*(as approved by the January 2015 Council and modified by the
January 2019 AMS Council)*

The AMS strives to ensure that participants in its activities enjoy a welcoming environment. In all its activities, the AMS seeks to foster an atmosphere that encourages the free expression and exchange of ideas. The AMS supports equality of opportunity and treatment for all participants, regardless of gender, gender identity or expression, race, color, national or ethnic origin, religion or religious belief, age, marital status, sexual orientation, disabilities, veteran status, or immigration status.

Harassment is a form of misconduct that undermines the integrity of AMS activities and mission.

The AMS will make every effort to maintain an environment that is free of harassment, even though it does not control the behavior of third parties. A commitment to a welcoming environment is expected of all attendees at AMS activities, including mathematicians, students, guests, staff, contractors and exhibitors, and participants in scientific sessions and social events. To this end, the AMS will include a statement concerning its expectations towards maintaining a welcoming environment in registration materials for all its meetings, and has put in place a mechanism for reporting violations. Violations may be reported confidentially and anonymously to 855-282-5703 or at www.mathsociety.ethicspoint.com. The reporting mechanism ensures the respect of privacy while alerting the AMS to the situation. For AMS policy statements concerning discrimination and harassment, see:

<http://www.ams.org/about-us/governance/policy-statements/anti-harassment-policy>

From Sturgis's Standard Code of Parliamentary Procedure

Relevancy in Debate: All discussion must be relevant or "germane" to the motion before the assembly. A member is given the floor only for the purpose of discussing the pending question; discussion which departs from the subject is out of order. Dilatory tactics are always out of order

Members' Conduct during Debate: Debate must be fundamentally impersonal. All discussion is addressed to the presiding officer and must never be directed to any individual. It is never permissible to attack the motives, character, or personality of a member either directly or by innuendo or implication. Meetings must discuss measures, not people. A member who fails or refuses to speak in an orderly and courteous manner may be denied the right to the floor.

Return to Item 1.3.3

AMS Policy Statement on Anti-Harassment
*(Adopted by the Council in April 2016 so as to
speak in the name of the American Mathematical Society)*

In all its activities, the AMS strives to foster a welcoming environment that encourages the free expression and exchange of ideas. The AMS supports equality of opportunity and treatment for all participants, regardless of gender, gender identity or expression, race, color, national or ethnic origin, religion or religious belief, age, marital status, sexual orientation, disabilities, immigration status, or veteran status.

Harassment, sexual or otherwise, is a form of misconduct that undermines the integrity of AMS activities and mission. The AMS endeavors to maintain an environment that is free of harassment. Any person aware of inappropriate conduct may file a report confidentially and anonymously to +1-855-282-5703 or at www.mathsociety.ethicspoint.com. The reporting mechanism ensures the respect of privacy while alerting the AMS to the situation.

Understanding Harassment

Harassment is belittling or threatening behavior directed at an individual or a group of people. This conduct may include, but is not limited to: epithets, slurs or negative stereotyping; threatening, intimidating or hostile acts; denigrating jokes and display or circulation of written or graphic material that disparages or shows hostility or aversion toward an individual or group.

Harassment also refers to bullying or coercion of a sexual nature. Sexual harassment can include offensive remarks about a person's gender, gender identity, or sexual preference. Harassment may include unwelcome or inappropriate promises of rewards in exchange for sexual favors. The following are examples of behavior that, when unwelcome, may constitute sexual harassment: sexual flirtations, advances, or propositions; unnecessary touching; verbal comments or physical actions of a sexual nature; sexually degrading words used to describe an individual; a display of sexually suggestive objects or pictures; sexually explicit jokes.

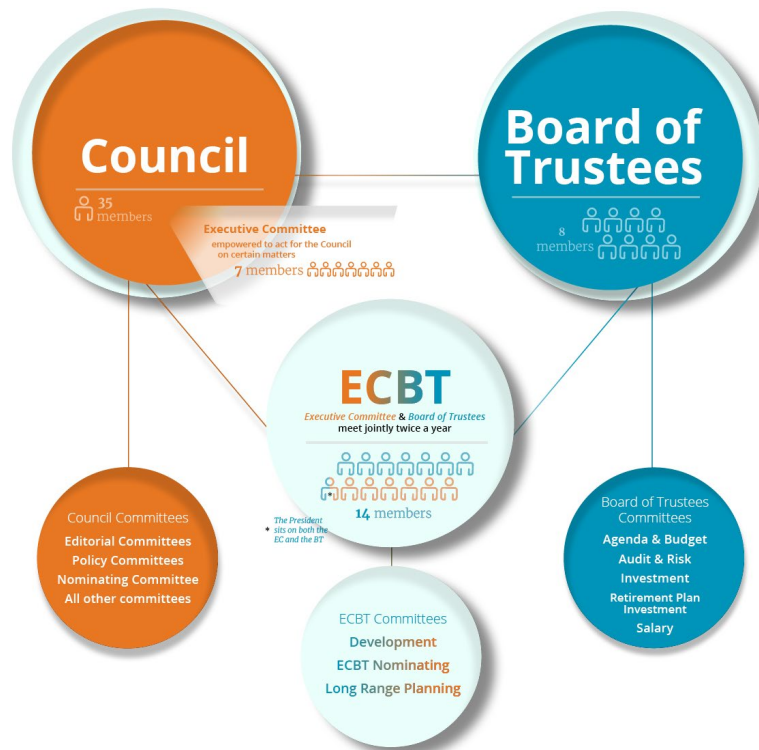
It is important to be aware of discomfort or offense that words or actions may cause. A teasing comment or offhand remark that may be inoffensive to some may be perceived as harassment by others. Consequently, individuals must act to ensure that their words and actions communicate respect for others, in light of the international and multicultural nature of the mathematical community. Those in positions of authority must be especially mindful of this policy since individuals with lower rank or a subordinate position may be reluctant to express their objections or discomfort regarding unwelcome behavior.

Applicability to the Profession

The AMS believes that harassment has no place in mathematics, whatever the setting. Members of the profession should refrain from such behavior as well as work towards preventing it.

Return to Item 1.4

Society Governance



The American Mathematical Society has a bicameral governance structure consisting of the Council (created when the Society's constitution was ratified in December 1889) and the Board of Trustees (created when the Society was incorporated in May 1923). These bodies have the ultimate responsibility and authority for representing the AMS membership and the broader mathematical community, determining how the AMS can best serve their collective needs, and formulating and approving policies to address these needs. The governing bodies determine what the Society does and the general framework for how it utilizes its volunteer, staff, and financial resources.

The Governance Leadership consists of the Officers (President, President Elect or Immediate Past President, three Vice Presidents, Secretary, four Associate Secretaries, Treasurer, and Associate Treasurer), the Council, Executive Committee of the Council, and Board of Trustees.

The Council formulates and administers the scientific policies of the Society and acts in an advisory capacity to the Board of Trustees. Council Meetings are held twice a year (January and the spring).

The Board of Trustees receives and administers the funds of the Society, has full legal control of its investments and properties, and conducts all business affairs of the Society. The Trustees meet jointly with the Executive Committee of the Council twice a year (May and November) at ECBT Meetings.

The Council and Board of Trustees are advised by nearly 100 committees, including six Policy Committees (Education, Equity, Diversity, and Inclusion, Meetings and Conferences, Profession, Publications, and Science Policy) and over 20 Editorial Committees for the various Journals and Books it publishes.

The Council and Board of Trustees are also advised by the Executive Director and the Executive Staff, who are responsible for seeing that governance decisions are implemented by the Society's approximately 200 staff members.

Return to Item 1.7

Parliamentary Procedure at a Glance
 (Based on *The Standard Code of Parliamentary Procedure* by Alice Sturgis)
Principal Motions (Listed in Order of Precedence)

TO DO THIS	YOU SAY THIS	May You Interrupt Speaker?	Must You Be Seconded?	Is The Motion Debatable?	What Vote is Required?
*Adjourn the meeting	"I move the meeting be adjourned"	NO	YES	YES (RESTRICTED)	MAJORITY
*Recess the meeting	"I move that the meeting be recessed until..."	NO	YES	YES**	MAJORITY
Complain about noise, room temperature, etc.	"I rise to the question of personal privilege"	YES	NO	NO	NONE
Postpone temporarily (Table)	"I move that this motion be tabled"	NO	YES	NO	MAJORITY (REQUIRES TWO-THIRDS IF IT WOULD SUPPRESS)
End debate	"I move to vote immediately"	NO	YES	NO	TWO-THIRDS
*Limit debate	"I move that each speaker be limited to a total of two minutes per discussion"	NO	YES	YES**	TWO-THIRDS
*Postpone consideration of an item to a certain time	"I move to postpone this item until 2:00pm..."	NO	YES	YES**	MAJORITY
*Have something referred to committee	"I move this matter be referred to..."	NO	YES	YES**	MAJORITY
*Amend a motion	"I move to amend this motion by..."	NO	YES	YES	MAJORITY
*Introduce business (the Main Motion)	"I move that..."	NO	YES	YES	MAJORITY
*Amend a previous action	"I move to amend the motion that was adopted..."	NO	YES	YES	MAJORITY
Ratify action taken in absence of a quorum or in an emergency	"I move to ratify the action taken by the Council..."	NO	YES	YES	MAJORITY
Reconsider	"I move to reconsider..."	YES	YES	YES**	MAJORITY
Rescind (a main motion)	"I move to rescind the motion..."	NO	YES	YES	MAJORITY
Resume consideration of a tabled item	"I move to resume consideration of...?"	NO	YES	NO	MAJORITY

*Amendable

**Debatable if no Other Motion is Pending

Return to Item 1.7

Incidental Motions

TO DO THIS	YOU SAY THIS	May You Interrupt Speaker?	Must You Be Seconded?	Is The Motion Debatable?	What Vote is Required?
Vote on a ruling by the Chair	"I appeal the Chair's decision"	YES	YES	YES	MAJORITY
Consider something out of its scheduled order	"I move to suspend the rules and consider..."	NO	YES	NO	TWO-THIRDS
To discuss an issue without restrictions of parliamentary rules	"I move that we consider informally..."	NO	YES	NO	MAJORITY
To call attention to a violation of the rules or error in procedure, and to secure a ruling on the question raised	"I rise to a point of order"	YES	NO	NO	NONE
To ask a question relating to procedure	"I rise to a parliamentary inquiry"	YES	NO	NO	NONE
To allow the maker of a motion to remove the motion from consideration	"I move to withdraw my motion"	YES	NO	NO	NONE
To separate a multi-part question into individual questions for the purpose of voting	"I move division of the question"	NO	NO	NO	NONE
To verify an indecisive voice or hand vote by requiring voters to rise and be counted	"I move to divide the Assembly"	YES	NO	NO	NONE

**Amendable*

***Debatable if no Other Motion is Pending*

Return to Item 1.7

The Chief Purposes of Motions

PURPOSE	MOTION
Present an idea for consideration and action	Main motion Resolution Consider informally
Improve a pending motion	Amend Division of question
Regulate or cut off debate	Limit or extend debate Close debate
Delay a decision	Refer to committee Postpone to a certain time Postpone temporarily Recess Adjourn
Suppress a proposal	Table Withdraw a motion
Meet an emergency	Question of privilege Suspend rules
Gain information on a pending motion	Parliamentary inquiry Request for information Request to ask member a question Question of privilege
Question the decision of the presiding officer	Point of order Appeal from decision of chair
Enforce rights and privileges	Division of assembly Division of question Parliamentary inquiry Point of order Appeal from decision of chair
Consider a question again	Resume consideration Reconsider Rescind Renew a motion Amend a previous action Ratify
Change an action already taken	Reconsider Rescind Amend a previous action
Terminate a meeting	Adjourn Recess

Return to Item 1.6

AMS Council Members February 1, 2024–January 31, 2025

Please note, everyone listed below has voting privileges at the May 11, 2024 Council meeting.

The Council includes fifteen members at large, its Executive Committee, the Officers of the Society, and representatives (usually chief editors) of the primary journals of the Society. Accordingly, several members of the Council serve in multiple roles. Current term end dates are included for all Council members below.

Officers

President	Bryna Kra	Northwestern University	31 Jan 2025
President Elect	Ravi Vakil	Stanford University	31 Jan 2025
Vice Presidents	Jesús A. De Loera	University of California, Davis	31 Jan 2025
	Irene Fonseca	Carnegie Mellon University	31 Jan 2027
	Bianca Viray	University of Washington	31 Jan 2026
Secretary	Boris Hasselblatt	Tufts University	31 Jan 2027
Associate Secretaries	Brian D. Boe	University of Georgia	31 Jan 2027
	Michelle Manes	American Institute of Mathematics	31 Jan 2026
	Betsy Stovall	University of Wisconsin-Madison	31 Jan 2026
	Steven H. Weintraub	Lehigh University	31 Jan 2025
Treasurer	Douglas L. Ulmer	University of Arizona	31 Jan 2027
Associate Treasurer	Linda Chen	Swarthmore College	31 Jan 2026

Members at Large

Christine Berkesch	University of Minnesota Twin Cities	31 Jan 2026
Naiomi Cameron	Spelman College	31 Jan 2027
Gunnar Carlsson	Stanford University	31 Jan 2025
William Goldman	University of Maryland	31 Jan 2025
Svetlana Jitomirskaya	University of California, Irvine	31 Jan 2025
Lily S. Khadjavi	Loyola Marymount University	31 Jan 2025
Matilde Lalín	Université de Montréal	31 Jan 2027
Sara Maloni	University of Virginia	31 Jan 2027
William A. Massey	Princeton University	31 Jan 2026
Sam Payne	University of Texas at Austin	31 Jan 2026
Andrew Putman	University of Notre Dame	31 Jan 2027
Emily Riehl	Johns Hopkins University	31 Jan 2026
Tonghai Yang	University of Wisconsin	31 Jan 2025
Cynthia Vinzant	University of Washington	31 Jan 2026
John Voight	Dartmouth College	31 Jan 2027

Executive Committee

Boris Hasselblatt	Tufts University	<i>ex officio</i> , 31 Jan 2027
Kiran Kedlaya	University of California, San Diego	31 Jan 2027
Bryna Kra	Northwestern University	<i>ex officio</i> , 31 Jan 2025
Emily Riehl	Johns Hopkins University	31 Jan 2028
Francis Su	Harvey Mudd College	31 Jan 2025
Ravi Vakil	Stanford University	<i>ex officio</i> , 31 Jan 2025
Bianca Viray	University of Washington	31 Jan 2026

Return to Item 1.6

AMS Council Members February 1, 2024–January 31, 2025

Please note, everyone listed below has voting privileges at the May 11, 2024 Council meeting.

Representatives of Primary Journals

Bulletin of the AMS	Alejandro Adem	University of British Columbia	31 Jan 2027
Colloquium	Mark Kisin	Harvard University	31 Jan 2025
Communications of AMS	Qiang Du	Columbia University	31 Jan 2025
Journal of the AMS	Pavel Etingof	Massachusetts Institute of Technology	31 Jan 2025
Mathematical Reviews	Sergey Fomin	University of Michigan	31 Jan 2028
Math Surveys & Monographs	Bryna Kra	Northwestern University	31 Jan 2026
Mathematics of Computation	Michael Neilan	University of Pittsburgh	31 Jan 2028
Proceedings of the AMS	David Futer	Temple University	31 Jan 2026
Transactions and Memoirs	Dan Abramovich	Brown University	31 Jan 2025

Table of Contents

1 Call to Order.....	1
1.1 Opening of the Meeting and Introductions.....	1
1.2 AMS Mission Statement.....	1
1.3 AMS Policies and Guidelines.....	1
1.3.1 Conflict of Interest Policy.....	1
1.3.2 Equity, Diversity and Inclusion Statement.....	2
1.3.3 AMS Policy on a Welcoming Environment and AMS Policy Statement on Anti-Harassment...	2
1.4 Society Governance.....	2
1.5 Recent Additions to this Council.....	2
1.6 List of Council Members.....	2
1.7 Rules Governing Council Meetings.....	3
2 Consent Agenda.....	3
2.1 Minutes of the January 2024 Council Meeting.....	3
2.2 Minutes of the 2024 Executive Committee Election.....	3
2.3 Modification of the Prize Oversight Committee Report.....	3
2.4 Committee on Committees Charge.....	4
2.5 AMS-Simons Travel Grants Committee and AMS-Simons PUI Research Grants Committee Charges.	4
3 Old Business.....	5
3.1 Mathematics Subject Classification (MSC) 97 and Math Reviews/Math.....	5
4 New Business.....	5
4.1 Additional Topics for Immediate or Future Consideration.....	5
4.2 Task Force to Support Mathematics Degree Programs.....	5
4.3 Artificial Intelligence as a Theme for JMM 2025.....	5
5 Reports, Updates, and Information.....	6
5.1 Reports and Updates.....	6
5.1.1 The Committee on Meetings and Conferences (CoMC).....	6
5.1.2 The Committee on Science Policy (CSP).....	6
5.1.3 The Committee on Equity, Diversity, and Inclusion (CoEDI).....	6
5.1.4 The Committee on the Profession (CoProf).....	6
5.1.5 The Committee on Publications (CPub).....	7
5.1.6 The Committee on Education (CoE).....	7

5.1.7 Mathematical Reviews Editorial Committee (MREC).....	7
5.1.8 Executive Director Report.....	8
5.1.9 President's Report.....	8
5.1.10 AMS Artificial Intelligence Advisory Group.....	8
5.1.11 Update on the Review of the Bylaws of the American Mathematical Society.....	8
5.1.12 Report from the AWM-AMS Noether Lecture Selection Committee.....	9
5.2 Information.....	9
5.2.1 Executive Committee and Board of Trustees Meetings.....	9
5.2.2 Presidential Nominations to the Editorial Boards Committee and Nominating Committee...	9
5.2.3 AMS and Joint Lectures.....	9
5.2.3.1 AMS Colloquium Lectures.....	10
5.2.3.2 AMS Josiah Willard Gibbs Lecture.....	10
5.2.3.3 AMS Invited Addresses.....	10
5.2.3.4 AMS Erdos Lecture for Students.....	10
5.2.3.5 AMS Lecture on Education.....	10
5.2.3.6 AWM-AMS Noether Lecture.....	10
5.2.3.7 AAAS-AMS Invited Address.....	10
5.2.3.8 MAA-SIAM-AMS Hrabowski-Gates-Tapia-McBay Lecture.....	10
5.2.3.9 MAA-AMS-SIAM Gerald and Judith Porter Public Lecture.....	10
5.2.3.10 AMS-MAA Lecture at MathFest.....	11
5.2.3.11 AMS-SIAM Invited Address.....	11
5.2.4 Update to Committee Charges.....	11
5.2.5 Code of Conduct.....	11
5.2.6 Nominations for AMS Committees, Editorial Boards, Speakers, and Prizes and Awards.....	12
5.2.7 Next Council Meeting.....	12
5.2.8 Governance Meetings.....	12
6 Executive Session.....	12
6.1 Nominating Committee.....	12
6.2 Managing Editor of Journal of the AMS.....	12
6.3 Managing Editor of Transactions of the AMS.....	12
6.4 Managing Editors of Communications of the AMS.....	12

6.5 Chair of the Colloquium Editorial Com.....	13
6.6 Adjournment.....	13
Attachment A: Minutes of the Executive Committee Election.....	15
Attachment B: Amended Prize Oversight Committee Report.....	16
Attachment C: Committee on Committees Charge.....	22
Attachment D: AMS-Simons Travel Grants Committee Charge.....	24
Attachment E: AMS-Simons Research Enhancement Grants for PUI Faculty Committee.....	26
Attachment F: MREC Annual Report.....	30
Attachment G: Members of the Task Force to Support Mathematics Degree Programs.....	31
Attachment H: 2024 Progress Report to Council on Task Force Recommendations (CoEDI).	32
Attachment I: 2023 CoProf Annual Report.....	40
Attachment J: 2023 CPub Annual Report.....	42
Attachment K: 2023 CoE Annual Report.....	45
Attachment L: 2023 State of the AMS Report.....	47
Attachment M: Equity, diversity, inclusion, and artificial intelligence.....	51
Attachment N: Questions Artificial Intelligence Raises for the Mathematics Profession.....	53
Attachment O: Artificial Intelligence: Challenges and Opportunities in Postsecondary.....	58
Attachment P: Artificial Intelligence: Publishing in Mathematics.....	62
Attachment Q: Harnessing the Power of Artificial Intelligence with Mathematics.....	65
Attachment R: Update on the Review of the Bylaws of the American Mathematical Society...	67
Attachment S: Report from the AWM-AMS Emmy Noether Lecture Selection Committee.....	71
Attachment T: Code of Conduct for Conferences,Meetings, and Other Events.....	73

1 Call to Order

1.1 Opening of the Meeting and Introductions *Bryna Kra*

1.2 AMS Mission Statement *Bryna Kra*

The *AMS Mission Statement* is included as front-matter in this agenda ([page ii](#)).

For information.

1.3 AMS Policies and Guidelines *Boris Hasselblatt*

All AMS Policies and Guidelines are available at:

<https://www.ams.org/about-us/governance/policy-statements/sec-ams-policystatements>.

For information.

1.3.1 Conflict of Interest Policy *Boris Hasselblatt*

Council members are asked to read and consider this item in advance of the meeting.

Identifying and Managing the Appearance of Conflicts of Interest

The AMS is best served by its governance bodies if we avoid all possible appearance of conflicts of interest in our deliberations and decisions. Any steps to this end should ideally be undertaken well in advance of a meeting. Those reading an agenda in preparation for a meeting should consider whether their own or anyone else's participation in any part of the meeting could be perceived by a reasonable observer as creating a possible conflict of interest. The Secretary and Executive Director stand ready to consult on pertinent questions. The meeting itself is not the best venue for deciding such questions in a reasoned way.

In the unfortunate event that the question of possible appearances of a conflict of interest is only raised during a meeting, the Secretary and President recommend that the meeting participant or guest involved immediately recuse from the pertinent discussion or the remainder of the meeting, unless a secret ballot of voting members is unanimous that no reasonable observer could perceive any possible conflict of interest.

A few examples of fairly clear conflicts of interest.

- If you serve a sister society with a publishing program in a fiduciary capacity, then you should resign from (or not agree in the first place to serve on) the Committee on Publications and recuse from pertinent conversations and votes in any AMS governance body that involves information or discussion about the AMS publishing division that is not public.
- If you are a compensated volunteer, then you should recuse from any conversations pertinent to volunteer compensation, such as might take place, for instance, on the Board of Trustees.
- If you are involved in any AMS-funded program, then you should recuse from any discussion about budgets that include or possibly impinge on that program. On the other hand, being an AMS Book Author, say, rarely involves such stakes as to create an impression of impropriety.

The *Conflict of Interest Policy for Officers and Committee Members* is included as front-matter in this

agenda ([page ii](#)). Council members are asked to alert the President and the Secretary to any agenda items with which they may have a conflict of interest, preferably well in advance of the meeting.

For information.

1.3.2 Equity, Diversity and Inclusion Statement *Boris Hasselblatt*

The *Equity, Diversity and Inclusion Statement* is included as front-matter in this agenda ([page iii](#)). This statement is included to inform Council decisions about policies, practices, and actions of the Society. It should be reflected in the conduct of the meeting deliberations, allowing for equitable speaking time, respect for a diversity of points of view, and inclusion of all participants and perspectives.

For information.

1.3.3 AMS Policy on a Welcoming Environment and AMS Policy Statement on Anti-Harassment *Boris Hasselblatt*

The *AMS Policy on a Welcoming Environment* and *AMS Policy Statement on Anti-Harassment* are included as front-matter in this agenda ([page iii](#)). These policies are provided here to inform our decisions but more so because it applies directly to the way in which this meeting will be conducted.

For information.

1.4 Society Governance *Boris Hasselblatt*

An overview of AMS governance is included as front-matter in this agenda ([page v](#)).

For information.

1.5 Recent Additions to this Council *Boris Hasselblatt*

Newly elected and appointed Council members took office on February 1, 2024:

President Elect: Ravi Vakil, Stanford University

Vice President: Irene Fonseca, Carnegie Mellon University

Members at Large:

- Naiomi Cameron, Spelman College
- Matilde Lalín, Université de Montréal
- Sara Maloni, University of Virginia
- Andrew Putman, University of Notre Dame
- John Voight, Dartmouth College

In addition, Emily Riehl, Johns Hopkins University, was elected to the Executive Committee of the Council for a four-year term February 1, 2024–January 31, 2028.

For information.

1.6 List of Council Members *Boris Hasselblatt*

A list of current Council Members, who have voting privileges during this meeting, is included as front matter on [pages ix-x](#). The bylaws, Article VI *Executive Director*, Section 4 specify that the Executive Director shall attend meetings of the Board of Trustees, the Council, and the Executive Committee, but shall not be a member of any of these bodies. Members of the Board of Trustees are invited guests of this meeting, as are newly elected Council members for the January Council meeting.

For information.

1.7 Rules Governing Council Meetings *Boris Hasselblatt*

Council meetings are normally open except when closed by the President or the Chair or by a majority vote of the Council. Council meetings follow Sturgis's Standard Code of Parliamentary Procedure. A primer on the rules pertaining to motions and their discussion is included on [pages vi-viii](#), and excerpts from Sturgis's Standard Code of Parliamentary Procedure about participation in discussion are included on [page iii](#).

Guests at this meeting may be invited to speak at the discretion of the presiding officer. Only members of Council have privileges of the floor.

The Secretary requests general consent for the usual Council practice that meeting breaks may be called at the discretion of the presiding officer.

For approval. *General consent is achieved when no objection is voiced.*

2 Consent Agenda (tacit) *Bryna Kra*

Items on the Consent Agenda are considered approved (by general consent) unless brought to the floor for discussion, in which case they must be approved in the ordinary manner. *Any Council member who has questions about any of these items is strongly encouraged to send these to the President and Secretary in advance of the meeting.*

2.1 Minutes of the January 2024 Council Meeting *Boris Hasselblatt*

The minutes of the January 2024 Council were distributed by email prior to this meeting and are posted on the AMS website: <https://www.ams.org/about-us/governance/council/council-minutes0124.pdf>. Council is asked to approve these minutes.

For approval. *If brought to the floor for discussion, approval will require a simple majority of affirmative votes from those members who are present.*

2.2 Minutes of the 2024 Executive Committee Election *Boris Hasselblatt*

In February, the Council held a meeting by technical means to elect Emily Riehl to the Executive Committee of the Council for a four-year term beginning on February 1, 2024 and ending when a replacement is elected in early 2028. Minutes of this business are attached ([Attachment A](#)).

For approval. *If brought to the floor for discussion, approval will require a simple majority of affirmative votes from those members who are present.*

2.3 Modification of the Prize Oversight Committee Report *Boris Hasselblatt*

Prior to public posting of the January 2024 Council meeting minutes in which it was going to appear, the Executive Committee edited an instance of infelicitous wording in the report from the Prize Oversight Committee on the Fellows Program review; the change was requested by the

former and current chairs of the Prize Oversight Committee. Council is asked to affirm this action. The updated report is included as [Attachment B](#).

For approval. *If brought to the floor for discussion, approval will require a simple majority of affirmative votes from those members who are present.*

2.4 Committee on Committees Charge Boris Hasselblatt

The Secretary recommends the following changes to the charge of the Committee on Committees ([Attachment C](#)):

- In the "General Information" section, replace "Number of members is eight." with "Number of members is at least eight."
- Change "The President and Secretary serve as ex officio members. The committee should also consist of the President Elect (when there is one) and six other members, of whom one is a member of the Executive Committee (in addition to the three named above), at least one more is a member at large. The other three are appointed at the will of the President and need not be Council members."

to

"The President, Secretary and the President Elect (when there is one) serve as ex officio members. The committee also includes a member of the Executive Committee (in addition to the three named above) and at least one additional member at large of the Council. The other members are appointed at the will of the President and need not be Council members."

Rationale:

- 1) The present charge is inconsistent by mandating eight members while specifying nine when there is a president elect.
- 2) The role of the committee is to advise a president on committee appointments, for which broad knowledge of the community among this committee is essential. A president may deem it important to have broader representation on this committee than a cap of eight members allows.

For approval. *If brought to the floor for discussion, approval will require a simple majority of affirmative votes from those members who are present.*

2.5 AMS-Simons Travel Grants Committee and AMS-Simons PUI Research Grants Committee Charges Boris Hasselblatt

The Secretary recommends that the following bullet point be added to the general description section of the AMS-Simons Travel Grants Committee ([Attachment D](#)) and AMS-Simons PUI Research Grants Committee ([Attachment E](#)) charges:

- Additional members can be appointed for variable terms as needed.

This modification will allow flexibility in the number of members, which has proved crucial as application numbers soar.

For approval. *If brought to the floor for discussion, approval will require a simple majority of affirmative vote from those members who are present.*

3 Old Business

3.1 Mathematics Subject Classification (MSC) 97 and Math Reviews/MathSciNet *Christine Berkesch*

At the January 2, 2024 Council meeting, Council approved the following motion: the council recommends to MREC that it consider broadening the scope of MathSciNet, in particular to consider including articles on math education as primary subject areas.

In response to the Council's recommendation, MREC approved the following motion: "As of April 1, 2024, the Mathematics Subject Classification 97 (Mathematics Education) may be used as a primary classification for items in the Mathematical Reviews Database and MathSciNet, consistent with the established usage of other MSC subject classes within Mathematical Reviews." This motion is included in MREC's annual report ([Attachment F](#)).

For information.

4 New Business

4.1 Additional Topics for Immediate or Future Consideration *Bryna Kra*

Council members are invited to introduce topics of interest or concern that are not on the agenda. Members are encouraged to do so prior to the meeting when possible.

For discussion and possible action.

4.2 Task Force to Support Mathematics Degree Programs *Bryna Kra*

The AMS has previously endeavored to exert influence when mathematics programs are being closed. Recent such occurrences prompted the creation of a Task Force to Support Mathematics Degree Programs to develop ways in which reactions to such news can be more systematic and effective as well as to determine ways in which the Society can play a proactive rather than reactive role. To this latter end, this Task Force will undertake significant work this coming fall. The president will provide information and seek feedback.

The members of the task force are included in [Attachment G](#).

For information and discussion.

4.3 Artificial Intelligence as a Theme for JMM 2025 *Bryna Kra*

The AMS Advisory Group on Artificial Intelligence and the Mathematical Community proposed Artificial Intelligence as a theme for the Joint Mathematics Meetings 2025. This will be reflected in invited addresses and panels. Policy committees typically organize a panel at JMM, and some of these panels will be focused on AI at JMM 2025. Invited address speakers, both AMS and joint, are listed in [Item 5.2.3](#).

The president will provide information and seek feedback.

For information and discussion.

5 Reports, Updates, and Information

5.1 Reports and Updates

5.1.1 The Committee on Meetings and Conferences (CoMC) *Sam Payne (Chair) and Penny Pina (Staff Liaison)*

The Committee on Meetings and Conferences (CoMC) met at the AMS headquarters in Providence, RI on February 22–23, 2024. The CoMC annual report is expected at the January 2025 Council meeting; therefore, no executive summary is included in this agenda.

For information.

5.1.2 The Committee on Science Policy (CSP) *Carla Cotwright-Williams (Chair) and Karen Saxe (Staff Liaison)*

The Committee on Science Policy (CSP) met at the AMS office in Washington, D.C. on March 4–6, 2024. The CSP annual report is expected at the January 2025 Council meeting; therefore, no executive summary is included in this agenda.

For information.

5.1.3 The Committee on Equity, Diversity, and Inclusion (CoEDI) *Sarah Greenwald (Chair) and Ashley Northington (Interim Chief External Relations Officer)*

The Committee on Equity, Diversity, and Inclusion (CoEDI) met at the AMS office in Washington, D.C. on March 7–8, 2024. The CoEDI annual report is expected at the January 2025 Council meeting; therefore, no executive summary is included in this agenda.

The Committee on Equity, Diversity, and Inclusion (CoEDI) reports annually to Council on the progress the American Mathematical Society (AMS) is making to advance the 10 primary recommendations contained in the March 2021 report, *Towards a Fully Inclusive Mathematics Profession*. The report outlines the historical role the society played in perpetuating institutional racism. [Attachment H](#) summarizes the organization's progress to date. Ashley Northington, Interim Chief External Relations Officer, is available for questions.

For information and possible discussion.

5.1.4 The Committee on the Profession (CoProf) *Raphaël Rouquier (Chair) and Sarah Bryant (Staff Liaison)*

The Committee on the Profession (CoProf) met at the AMS headquarters in Providence, RI on September 21–22, 2023 and will be meeting again on October 24–25, 2024. The CoProf annual report is included as [Attachment I](#). CoProf Chair Raphaël Rouquier is available for questions.

Executive Summary from Report:

The agenda spanned a broad scope of proposals for consideration and appointed six subcommittees for its work in 2024. Additionally, CoProf recommended that Council establish a Taskforce on Cuts to Degree Programs in Mathematics. The subcommittees are: 2025 JMM Panel: AI and the Profession; Joint Subcommittee with CoMC: Holding Meetings in Localities with Discriminatory Practices or Laws; Joint CoE Standing Subcommittee on Teaching Assistants and Instructional Faculty; Standing Subcommittee on Members and Member Benefits; Membership

Requirements for the AMS-SIAM George David Birkhoff Prize (joint committee with SIAM). As the topic for its next annual review, CoProf decided to continue the work of the subcommittee, AMS Human Rights Activities/Membership in the Science and Human Rights Coalition for the Association for the Advancement of Science (AAAS) chaired by Raphaël Rouquier.

For information.

5.1.5 The Committee on Publications (CPub) *Laura DeMarco (Chair) and Robert Harington (Staff Liaison)*

The Committee on Publications (CPub) met at AMS headquarters in Providence, RI on September 22–23, 2023 and will be meeting again on October 25–26 2024. The CPub annual report is included as [Attachment J](#). Robert Harington, Chief Publishing Officer, is available for questions.

Executive Summary from Report:

The agenda included a number of discussion items related to publishing and a summary of actions taken on 2022 CPub recommendations. In 2023, a review of the AMS Primary Journals was conducted by a subcommittee and presented to CPub. In keeping with its review cycle, in 2024 a CPub subcommittee will conduct a review of the Member Journals (Abstracts of the AMS, Bulletin of the AMS, Notices of the AMS) and Other Journals (electronic only, translation, and distributed journals). An Advisory Group on Artificial Intelligence (AI) was formed in 2023 and the Chair asked each policy committee for their input as to what the Committee should be focusing on. Given the importance of AI in publishing, a subcommittee will be formed to organize a CPub sponsored panel on Artificial Intelligence at the 2025 JMM.

For information.

5.1.6 The Committee on Education (CoE) *Christine Berkesch (Chair) and Tyler Kloefkorn (Staff Liaison)*

The Committee on Education (CoE) met at the AMS office in Washington, D.C. on September 27–29, 2023 and will be meeting again on September 18-20, 2024. The CoE annual report is included as [Attachment K](#). CoE Chair Christine Berkesch is available for questions.

Executive Summary from Report:

- CoE organized the hybrid 2023 Education Mini-conference on “Enhancing graduate programs in the mathematical sciences for student success”.
- CoE hosted a JMM 2024 panel entitled “Mathematics online: PDFs and issues regarding accessibility”.
- A subcommittee of CoE is actively engaged in the use the MSC code 97 (mathematics education) in MathSciNet.
- As was done in 2022 and 2023, CoE will do Hill visits in conjunction with their annual meeting in September 2024.

For information and possible discussion.

5.1.7 Mathematical Reviews Editorial Committee (MREC) *Sergey Fomin (Chair) and Edward Dunne (Staff Liaison)*

The Mathematical Reviews Editorial Committee met at the AMS office in Ann Arbor, Michigan on October 2, 2023. The MREC annual report is included as [Attachment F](#). MREC Chair Sergey Fomin is available for questions.

Executive Summary from Report:

MREC encourages the editorial curation of the database, as the journal literature continues to grow at almost 4% per year. Seven journals and one book series were added to the reference list program. MREC passed a motion allowing MSC97 (Mathematics Education) to be used as a primary classification for items in the Mathematical Reviews Database and MathSciNet, consistent with the established usage of other MSC subject classes within Mathematical Reviews.

For information.

5.1.8 Executive Director Report *Lucy Maddock*

AMS Interim Executive Director Lucy Maddock will report on the 2023 State of the AMS ([Attachment L](#)).

For information and possible discussion.

5.1.9 President's Report *Bryna Kra*

AMS President Bryna Kra will provide a verbal report.

For information and possible discussion.

5.1.10 AMS Artificial Intelligence Advisory Group *Bryna Kra*

Bryna Kra will give a brief update on recent activities of the Artificial Intelligence Advisory Group.

Drafts of the white papers generated by the advisory group are included in [Attachments M, N, O, P, and Q](#).

For information and possible discussion.

5.1.11 Update on the Review of the Bylaws of the American Mathematical Society

Boris Hasselblatt

In 2023 an external review by legal counsel yielded a marked-up version of the bylaws with added commentary. The charge to legal counsel was to assist in bringing the bylaws into compliance with ambient law and to make additional suggestions for possible improvement. This was reported previously. The annotations and comments are such that the Task Force to review the bylaws decided to attend to these after a fresh look at the bylaws in terms of what they stipulate. This also responds to discussions across governance about various aspects of our current governance.

The Task Force makes no recommendations at this time. Instead, the attached report ([Attachment R](#)) serves to convey an indication of the significant changes being considered at present. Comments on these will be helpful for the continuing work.

For information and possible discussion.

5.1.12 Report from the AWM-AMS Noether Lecture Selection Committee *Boris Hasselblatt*

The report of the AWM-AMS Noether Lecture Selection Committee is included as **Attachment S**, which the Council is asked to file.

For information.

5.2 Information

5.2.1 Executive Committee and Board of Trustees Meetings *Boris Hasselblatt*

The ECBT met on November 16–17, 2023 in Washington, D.C. and will be meeting on May 9–10 at the AMS headquarters in Providence, R.I., just prior to the Council meeting. **This is the time at which items may be brought from that meeting for Council consideration.**

The minutes of the May and November 2023 meetings have been distributed. These are considered part of the minutes of the Council. They are also available at:
<https://www.ams.org/about-us/governance/ecbt-meetings/sec-ecbt-minutes>.

For discussion.

5.2.2 Presidential Nominations to the Editorial Boards Committee and Nominating Committee *Bryna Kra*

Each year, the President of the Society names at least four candidates for two elected positions on the Editorial Boards Committee and at least six candidates for three elected positions on the Nominating Committee.

President Bryna Kra named the following candidates:

Editorial Boards Committee

- Ivan Corwin, Columbia University
- Irene Fonseca, Carnegie Mellon University
- Christopher Hacon, University of Utah
- Michael Larsen, Indiana University

Nominating Committee

- David Fisher, Rice University
- Aimee Johnson, Swarthmore College
- Lily Khadjavi, Loyola Marymount University
- Kasso Okoudjou, Tufts University
- Gigliola Staffilani, Massachusetts Institute of Technology
- Jared Wunsch, Northwestern University

For information.

5.2.3 AMS and Joint Lectures *Boris Hasselblatt*

5.2.3.1 AMS Colloquium Lectures *Boris Hasselblatt*

The Executive Committee (EC) supported the recommendation of the Colloquium Lecture

Selection Committee to invite Svetlana Jitomirskaya, University of California, Irvine, to deliver the Colloquium Lecture at JMM 2025 in Seattle, WA. She has accepted this invitation.

For information.

5.2.3.2 AMS Josiah Willard Gibbs Lecture *Boris Hasselblatt*

The Executive Committee (EC) supported the recommendation of the Gibbs Lecture Selection Committee to invite Yann LeCun, New York University and Meta, to deliver the Colloquium Lecture at JMM 2025 in Seattle, WA. He has accepted this invitation.

For information.

5.2.3.3 AMS Invited Addresses *Boris Hasselblatt*

The following speakers will be delivering addresses at JMM 2025:

- Mohammed Abouzaid, Stanford University
- Semyon Dyatlov, Massachusetts Institute of Technology
- Lester Mackey, Stanford University (John von Neumann Lecture)
- Kirsten Wickelgren, Duke University
- Alex Wright, University of Michigan (Maryam Mirzakhani Lecture)

For information.

5.2.3.4 AMS Erdős Lecture for Students *Boris Hasselblatt*

Kristin Lauter, Meta, will be delivering the Erdős Lecture for Students at JMM 2025.

For information.

5.2.3.5 AMS Lecture on Education *Boris Hasselblatt*

Pamela Harris, University of Wisconsin, Milwaukee, will be delivering the AMS Lecture on Education at JMM 2025.

For information.

5.2.3.6 AWM-AMS Noether Lecture *Boris Hasselblatt*

Neena Gupta, Indian Statistical Institute will be delivering the AWM-AMS Noether Lecture at JMM 2025.

For information.

5.2.3.7 AAAS-AMS Invited Address *Boris Hasselblatt*

Emily Fox, Stanford University will be delivering the AAAS-AMS Invited Address at JMM 2025.

For information.

5.2.3.8 MAA-SIAM-AMS Hrabowski-Gates-Tapia-McBay Lecture *Boris Hasselblatt*

Victor Moll, Tulane University will be delivering the MAA-SIAM-AMS Hrabowski-Gates-Tapia-McBay Lecture at JMM 2025.

For information.

5.2.3.9 MAA-AMS-SIAM Gerald and Judith Porter Public Lecture *Boris Hasselblatt*

Ravi Vakil, Stanford University will be delivering the MAA-AMS-SIAM Gerald and Judith Porter Public at JMM 2025.

For information.

5.2.3.10 AMS-MAA Lecture at MathFest *Boris Hasselblatt*

Diana Thomas, United States Military Academy, West Point will be delivering the AMS-MAA Lecture at MathFest 2024 in Indianapolis, IN.

For information.

5.2.3.11 AMS-SIAM Invited Address *Boris Hasselblatt*

Laure Zanna, Courant Institute, will be delivering the 2025 AMS-SIAM Invited Address at the Third Joint SIAM/CAIMS Annual Meetings (AN25) to be held on July 28- August 1, 2025 in Montreal, Canada.

For information.

5.2.4 Update to Committee Charges *Boris Hasselblatt*

The Office of the Secretary has added the following recommendation to committee charges where applicable: "When a new chair is needed, the second-year member is usually appointed to allow for the possibility of serving in the subsequent year either as chair or as consultant to the new chair." The following committee charges were modified:

- Archives Committee
- Ivo and Renata Babuška Thesis Prize Selection Committee
- Colloquium Lecture Selection Committee
- Levi L. Conant Prize Selection Committee
- Fan Fund Committee
- Karl Menger Memorial Awards Selection Committee

For information.

5.2.5 Code of Conduct *Boris Hasselblatt*

Part of the logistics of running AMS meetings, notably the Joint Mathematics Meetings, is the ability to handle disruptions. At times, this may lead AMS staff to ask a participant to leave and/or for staff to request assistance from the security services of the venue for this purpose. The proposed Code of Conduct is designed to provide staff with guidance and authority to make such requests, and was designed in consultation with Penny Pina, the AMS Director of Meetings & Conferences. The Code of Conduct, which is included as **Attachment T**, was created by a joint subcommittee of the AMS Committee on Meetings and Conferences and the AMS Board of Trustees [Svetlana Jitomirskaya (co-chair), Joseph Silverman (co-chair), Johnny Guzman] with support from staff and outside counsel. The purpose of this code is not to govern all aspects of desirable conduct of meeting participants, but to define transgressions that require intervention. Its scope is therefore deliberately minimal and focuses on the needs of the Director and Staff in the Meetings & Conferences Division.

For information.

5.2.6 Nominations for AMS Committees, Editorial Boards, Speakers, and Prizes and Awards

Bryna Kra

The AMS strives for diversity in gender, race, geography, and type of institution, for both its membership and leadership. Please consider recommending individuals for service on AMS committees and editorial boards (<https://www.ams.org/committee-nominate>) suggesting speakers for AMS meetings (<https://www.ams.org/suggestspeaker>), and nominating a colleague, program or department for AMS prizes and awards (<https://www.ams.org/prizes-awards>).

For information.

5.2.7 Next Council Meeting *Bryna Kra*

The next AMS Council Meeting will be held in Seattle, WA on January 7, 2025.

For information.

5.2.8 Governance Meetings *Bryna Kra*

A comprehensive list of future governance meetings is available at <https://www.ams.org/calendar/>.

For information.

6 Executive Session

6.1 Nominating Committee *Alejandro Adem*

The Nominating Committee has recommendations for Council concerning slates for the upcoming AMS election in fall 2024. These will be considered in Executive Session.

For approval. *Approval requires a simple majority of affirmative votes from those members who are present.*

6.2 Managing Editor of *Journal of the AMS* *Kate Juschenko*

A recommendation from the Editorial Boards Committee for Managing Editor of *Journal of the AMS* will be considered in Executive Session.

For approval. *Approval requires a simple majority of affirmative votes from those members who are present.*

6.3 Managing Editor of *Transactions of the AMS* *Kate Juschenko*

A recommendation from the Editorial Boards Committee for Managing Editor of *Transactions of the AMS* will be considered in Executive Session.

For approval. *Approval requires a simple majority of affirmative votes from those members who are present.*

6.4 Managing Editors of *Communications of the AMS* *Kate Juschenko*

Recommendations from the Editorial Boards Committee for Managing Editors of *Communications of the AMS* will be considered in Executive Session.

For approval. *Approval requires a simple majority of affirmative votes from those members who are present.*

6.5 Chair of the Colloquium Editorial Committee *Kate Juschenko*

A recommendation from the Editorial Boards Committee for Chair of the Colloquium Editorial Committee will be considered in Executive Session.

For approval. *Approval requires a simple majority of affirmative votes from those members who are present.*

6.6 Adjournment

A formal vote need not be taken. The chair, sensing that it is time to adjourn, may ask "Is there any further business to come before the meeting?" If, after a pause, there has been no response, the assembly has, in effect, voted by general consent to adjourn, and the presiding officer may simply say, "If not, hearing no objection, the meeting is adjourned."

Attachments



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Return to Item 2.2

**AMERICAN MATHEMATICAL SOCIETY
MINUTES OF THE COUNCIL
BUSINESS BY MAIL
February 2, 2023**

Executive Committee Election

In an email ballot dated February 1, 2024, 27 votes were cast:

The result of this election was:

Lily Khadjavi	6
Emily Riehl	19

One Council member abstained.

Accordingly, Emily Riehl was appointed to the Executive Committee for a term of four years, beginning February 01, 2024, and ending when a replacement is determined in the election of early 2028.

Respectfully yours,
Boris Hasselblatt
Tufts University
Secretary of the AMS

TEN-YEAR REVIEW OF THE AMS FELLOWSHIP PROGRAM

Introduction

The Prize Oversight Committee (“POC”) has been charged with the ten-year review of the AMS Fellows program, which was approved by membership in 2011, with the inaugural class of fellows inducted in 2013.

The POC began to gather data in 2021 and started the review process in 2023. Different aspects of the program were studied by three subcommittees of the POC:

- A subcommittee to handle issues of Equity, Diversity, and Inclusion of the AMS Fellows program
- A subcommittee to review the nomination, selection, and citation process of the AMS Fellows program
- A subcommittee to review program requirements and size

The POC was aided by a number of sources of data and information. Information sources that proved useful were:

- Reports from the past chairs of the Fellows Selection Committee
- Numerical data on nomination numbers, number of Fellows selected, and AMS membership as a whole
- Demographic data from the existing Fellows that was collected in preparation for this report
- A survey of the existing Fellows that was collected in preparation for this report
- A community survey on the Fellows program that was collected in preparation for this report

These sources were of varying utility. The Fellows selection committee chairs’ reports were a guide to what is and is not working in the nomination and selection process and were very valuable, as of course were the basic numerical data. We received answers on about 25% of the demographic surveys; while this provides some useful information, the possibility of selection bias makes it difficult to draw conclusions from these data. The surveys of Fellows had quite a lot of responses, and they make interesting reading; on most of the more contentious issues regarding the program, though, opinion seems to be radically split, with no consensus arising. The community survey has many fewer responses (a total of 11).

Overall, a significant lack of demographic data, especially as concerns AMS membership as a whole, hampered our ability to make quantitative judgments on the success or failure of the program’s efforts at diversity and inclusion.

Impact of the program

One dimension in which the survey of Fellows was enlightening was in analyzing the benefits of AMS Fellowship. We lack hard data on these benefits, but assessing them is crucial in our understanding of the worth of the Fellowship program, so this anecdotal format is the best guide that we have.

Views on the benefits to the profession of the Fellowship program (question 1) are scattered, with no consensus arising. But the more personal survey question 2 ("Has the AMS Fellowship program supported your career? If so, how?") yields a more consistent story. Older, more senior mathematicians often report, unsurprisingly, that Fellowship had little effect on their lives:

- "No, the program came too late in my own career"
- "I was too senior for it to matter much"
- "Nah, I'm old and famous"

But for early- and mid-career mathematicians, there seems to be ample evidence of an impact:

- "Becoming an AMS Fellow was used by my department to support a proposal for advancement in rank and salary"
- "Definitely, the recognition is helpful for me and the early career mathematicians in my orbit"
- "Very much so. My home institution was very pleased about the honor, and has consequently helped my group's research program through monetary resources"

The POC thus finds that the Fellowship program has largely lived up to its mission of giving a career boost and deserved local publicity to excellent mathematicians throughout the US.

The survey comments also offer some indirect evidence that the program may have made a difference in improving the stature of, and gaining resources for, the Fellows' departments, even in cases where direct benefit to the Fellow may have been limited. There were a few responses to the question above such as

- "Yes - recognition of mathematics faculty at my institution"
- "Yes. I believe that it has increased my profile with my universities [sic] higher ups, allowing my department to have a voice in negotiations that the administration is more likely to listen to."
- "No, not directly. Perhaps indirectly by raising the overall standing of my department within the university."

At this higher institutional level it is of course harder to get solid information (and, in retrospect, we regret not having solicited comments from department chairs), but anecdotally it would appear that the program has given departments a further tool to demonstrate their excellence to university administrations and, hence, to compete more effectively for resources.

Program size

The original AMS Fellowship documents specify a steady state number of Fellows equal to 5% of total membership, which at that time (total membership 30,000) meant 1500 Fellows. It was anticipated that 40 new Fellows per year would be the right number to maintain this equilibrium.

Total membership has dropped (e.g., 26,510 in 2020), while the Fellows intake in the last five cycles has been 39, 45, 45, 46, 42, in reverse chronological order). The total number of Fellows as of 2021 was 1496, which is about 5.6% of the current total membership.

We believe 5% is a reasonable number to aim for in light of the mandate that the Fellows Program should “honor not only the extraordinary but also the excellent.” In order to maintain this fraction, the new Fellows numbers should probably decrease a bit to reflect the smaller membership. Sharp changes may have unfortunate effects on our efforts to diversify, however, so they should be undertaken with caution.

In order to make the number of Fellows responsive to the changing membership numbers, but without making large changes to the numbers of Fellows accepted in each year, we have recommended that the number of new Fellows in a given year be set as a fraction of the current membership. This is the method used by several other societies, including SIAM.

The total membership number is a composite of paying members and free student members, as well as reciprocity members. Since these fluctuate as a fraction of the whole, we have recommended tying the number of new Fellows just to the number of paying members, which was 11,483 in 2022.

Maintaining approximately 40 new Fellows annually as a target would thus suggest that we take 0.35% of the paying membership number as the number of new Fellows annually. We have suggested that a three-year moving average of the membership number be employed in this computation.

This should yield a steady state only modestly above the 5% of total membership numbers originally envisioned.

This plan was proposed to and adopted by AMS Council in May 2023.

Rules of the program

There is a consensus within the committee that the membership requirements are not sufficiently stringent, and that the Fellows program should motivate eminent mathematicians to show and maintain engagement with the Society.

We thus propose extending the membership requirement to *four years* prior to the year of nomination. Proposed nomination language would thus be:

“To be eligible for nomination as a Fellow, the individual being nominated must be an AMS member for the calendar year during which they are nominated and have been a member for the three prior years.”

The POC considered recommending a requirement for *ongoing* membership after election in order to maintain Fellow status, but concluded that any such requirement will be toothless and

ineffectual: the main boost to Fellows' status at their home institutions comes at the moment of election.

The committee also considered the question of instituting more stringent membership requirements for foreign members, but prefers to maintain the status quo in which all AMS members are treated equally: we feel the stronger membership requirements for all should suffice to ensure a long-term commitment to the Society.

The POC concluded that the system in which nominations continue to stay active for two additional years after the nomination year is working well; we considered a proposal to extend this in order that every file would end up being considered by completely disjoint selection committees, but concluded that there was sufficient selection committee turnover in the course of two additional cycles.

The POC reviewed the existing policy, under which the President and Secretary are made Fellows upon assuming office (if they are not already Fellows). The committee concluded that this policy is valuable, given the role of the President and Secretary in the process of electing new Fellows.

Selection

Nomination process.

On reading the prior selection committee chair reports and consulting with those involved, the POC felt that it was important for the selection committee's work that the supporters of the nomination supply more substantial information. We propose to replace the existing language on the (co-)nomination form, which is

"Please explain in a sentence or two why you are supporting this nomination. Your remarks are vital to the work of the selection committee; PLEASE DO NOT LEAVE THIS SPACE BLANK"

with the following:

"Please explain in one or two paragraphs why you are supporting this nomination, being as specific as possible about what mathematical achievements or services to the mathematical community make this candidate worthy of election. Your remarks are vital to the work of the selection committee."

Also, we suggest enlarging the text entry box for this section and making it required, so that the nominator cannot leave it blank.

Citations.

After much discussion, the POC decided to recommend that citations for AMS Fellows be eliminated altogether (including the citations for the current fellows that are on the website now). There were a number of reasons for this:

- Not all Fellows' entries have citations now (e.g. the 2013 inaugural class).
- The brief citations are too brief to be informative about distinctive contributions.
- There appears to be little agreement about how much weight should be given to "research contributions" vs. "service." It is not always clear what a given Fellow would prefer to have acknowledged, and whether the Fellow might be offended if the citation only mentioned service and not research, or vice versa.
- Past and present selection committees seem reluctant to write citations or find it difficult to write appropriate ones. Allowing nominators or nominees to write the citations would lead to inconsistency in the style and tone of citations.

This proposal was adopted by Council in May 2023 and implemented by the Office of the Secretary and the Programs department.

Quantity and diversity of nominations

The POC discussed the challenge of getting nominations from a wider range of institutions, but has not arrived at a wholly satisfactory plan to address this important issue. Our main actionable recommendation is the formation of a Canvassing Committee (see the "Diversity" section). Some further ideas for expanding nominations are listed below. Implementation of these plans would require some dedicated attention from staff or a further committee; they could for instance be part of the charge of the proposed Canvassing Committee.

- The AMS could send a letter to department chairs every year urging them to think about nominating their distinguished faculty. Such a letter (if this is tried), should be written so as to emphasize that service of various kinds to the mathematical community is taken seriously by the selection committee.
- A similar letter could be sent to the current Fellows encouraging them to nominate their colleagues and peers. Supplying some information to the chairs about the geographical distribution of recent Fellows might reassure them that it is not only the faculty at prestigious universities who are selected as Fellows.
- The POC also recommends contacting leaders at other mathematics organizations, especially those such as NAM and SIAM that serve highly diverse memberships, to solicit further nominations.

Changes to the webpage

The POC had some recommendations for changes to the web page listing AMS Fellows:

- There should be some mechanism whereby a Fellow can request that their institutional affiliation be updated, possibly as an addition to (rather than replacement of) the institution at time of election.. (This should be request-driven; the AMS need not re-examine the entire list every year.)
- A Fellow might want to list an affiliation with two institutions. The AMS should perhaps consider whether this should be allowed.

Diversity

While the AMS has made a considerable effort to address diversity and lack of representation of certain groups of mathematicians in leadership appointments, committees, honor and award recipients, and the overall profession, issues remain. The AMS should continue to strive for diversity, broadly construed, in the Fellows program as well as in other AMS awards.

To this end we propose the creation of a new standing Canvassing Committee. The charge of the committee would be to identify candidates for AMS Fellowship, prizes, and awards and to urge members of the community to nominate deserving candidates from populations that may otherwise not be represented among the nominees.

The committee would consist of 12 members appointed by the AMS President. The AMS Vice Presidents would serve ex-officio on the committee and the remainder of the committee would be appointed upon recommendation of the Committee on Committees. The Canvassing Committee would refrain from soliciting nominations of its own members, but committee members would remain eligible for AMS Fellowship and awards during their committee service. The non-VP members of the committee would be appointed in cohorts, each serving for a 3-year term.

We suggest consultation with a similar committee already in existence at SIAM to learn from their past experiences and best practices.

The efforts of the Canvassing Committee should be periodically reviewed, and the AMS should confidentially keep track of the nominations promoted by the committee.

Review

The next review of the program should be in another ten years.

Summary of principal recommendations

- Stabilize the program size as recommended above: take 0.35% of the paying membership number as the target number of new Fellows annually. (Approved by Council in 2023.)
- Eliminate citations. (Approved by Council in 2023.)
- Form a Canvassing Committee.
- Extend the membership requirements to four years prior to the year of nomination.
- The next review should occur in ten years.

Committee on Committees

General Description

- Committee is standing
- Number of members is **at least** eight
- Term is two years

The President and Secretary **and the President Elect (when there is one)** serve as *ex officio* members. The committee ~~should also consist of the President Elect (when there is one) and six other members, of whom one is~~ **also includes** a member of the Executive Committee (in addition to the three named above) **and** at least one more is a member at large **of the Council**. The other ~~three~~ **members** are appointed at the will of the President and need not be Council members.

Principal Activities

The Committee recommends committee appointments to the president.

The AMS strives for diversity in gender, race, geography, area of mathematics, and type of institution, for both its membership and its leadership. The Committee on Committees is expected to keep diversity of all kinds in mind when selecting candidates.

*Statement on Equity, Diversity and Inclusion
(as adopted by the April 2019 Council)*

The American Mathematical Society is committed to promoting and facilitating equity, diversity and inclusion throughout the mathematical sciences. For its own long-term prosperity as well as that of the public at large, our discipline must connect with and appropriately incorporate all sectors of society. We reaffirm the pledge in the AMS Mission Statement to "advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals," and urge all members to conduct their professional activities with this goal in mind.

Miscellaneous Information

The Committee usually meets once or twice a year, perhaps at the Annual Meeting and at the Spring Council meeting. Travel expenses to such meetings are reimbursed. This committee has been designated at **LEVEL B**.

Note to the Chair

Committee chairs should be informed, at the beginning of each fiscal period, of the budget of their committees and cautioned to remain within the budget. Such items as

travel reimbursement, accommodations, and meals for guests of any kind fall within these budgets.

For the purpose of archiving the committee activities, the Secretary maintains a central file system for archiving committee records. Committee Chairs are asked to submit committee records on yearly basis. Chairs can submit material at their discretion, and some materials that they may wish to provide are meeting minutes, agenda, and emails. Confidential material should be noted, so that it can be handled in a confidential manner.

Authorization

- 6/13/90; updated 10/90; 12/92; 8/94; 5/95; 7/99; 8/09; 12/13 Misc Info, Note, membership; 7/22
- 24 April 2021 Council, Item 6.8: Replaced the 1972 Equal Opportunities for Women Directive with the AMS Statement on Equity, Diversity and Inclusion.

Past Members

A list of current and past members is available here:

<http://www.ams.org/about-us/governance/committees/conc-past.html>

AMS-Simons Travel Grants Committee

General Description

- Committee is standing
- Number of members is 16, appointed by President
- Term is three years
- **Additional members can be appointed for variable terms as needed.**

Charge

The committee processes applications for and selects awardees of the AMS-Simons travel grants.

Principal Activities

For the evaluation process, the plan is to assemble a panel of 16 mathematicians. Each application will be briefly considered by at least two panelists. Some applicants will clearly be strong enough that they will be classified immediately as award winners, without further review, and others so weak as to be put aside. The remaining applications will be distributed to groups of four panelists, who will determine the remaining award winners.

Applications are due on March 31. Most of the work of this committee will be done shortly after that, over the course of the next six weeks: roughly April 1 - May 15. The applications themselves are relatively short (e.g., research statements are limited to 2.5 pages).

*Statement on Equity, Diversity and Inclusion
(as adopted by the April 2019 Council)*

The American Mathematical Society is committed to promoting and facilitating equity, diversity and inclusion throughout the mathematical sciences. For its own long-term prosperity as well as that of the public at large, our discipline must connect with and appropriately incorporate all sectors of society. We reaffirm the pledge in the AMS Mission Statement to "advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals," and urge all members to conduct their professional activities with this goal in mind.

Other Activities

In 2013 The Council adopted the following general principle:

For any program, fellowship, prize or award that has a maximum period of eligibility after receipt of the doctoral degree, the selection committee may use discretion in making exceptions to the limit on eligibility for candidates whose careers have been interrupted for reasons such as family or health.

Miscellaneous Information

The AMS-Simons Travel Grants are based upon a generous grant from the Simons Foundation. Each grant provides an early career mathematician with \$2000 per year for two years to reimburse travel expenses related to research. Sixty new awards will be made annually over the next three years. Individuals who are not more than four years past completion of a Ph.D. are eligible. The department of the awardee will also receive a small amount of funding to help enhance the research atmosphere there.

It is expected that work can be accomplished by email and videoconference.

Note to the Chair

For the purpose of archiving the committee activities, the Secretary maintains a central file system for archiving committee records. Committee Chairs are asked to submit committee records on yearly basis. Chairs can submit material at their discretion, and some materials that they may wish to provide are meeting minutes, agenda, and emails. Confidential material should be noted, so that it can be handled in a confidential manner.

Authorization

- 04/2011 Council Minutes, Item 3.2
- 01/2013 Council Minutes, Item 4.6.1: For any program, fellowship, prize or award that has a maximum period of eligibility after receipt of the doctoral degree, the selection committee may use discretion in making exceptions to the limit on eligibility for candidates whose careers have been interrupted for reasons such as family or health
- 24 April 2021 Council, Item 6.8: Added the Statement on Equity, Diversity and Inclusion
- 11 May 2024 Council, Item 2.5: Added "Additional members can be appointed for variable terms as needed" to the general description.

Past Members

A list of current and past members is available here:

<http://www.ams.org/about-us/governance/committees/simons-past.html>

AMS Prize Webpage

<http://www.ams.org/programs/travel-grants/AMS-SimonsTG>

AMS-Simons Research Enhancement Grants for PUI Faculty Committee

General Description

- Committee is standing
- Number of members is at least 15, appointed by President
- Term is three years
- Additional members can be appointed for variable terms as needed.

Charge to Committee

The committee reviews and recommends awardees of the AMS-Simons Research Enhancement Grants for PUI (Primarily Undergraduate Institution) Faculty.

Principal Activities

The Chair's Role

The committee chair shall be responsible for ensuring the review and process is completed on time and within the Society's policies and procedures. The chair shall facilitate and document the review and selection process, but, if possible, should not score or vote on nominees unless needed as a tiebreaker. The chair may take part in discussion of the nominees, but should be mindful of their primary role of facilitator. The chair will work in collaboration with the AMS Staff Mathematician throughout the process.

Reporting

The Chair of the committee shall complete the chair report by providing conflict of interest disclosures, the committee's recommendations, and a description of why the recipients were recommended. The report should include a list of recommended applications, a list of applications that are not recommended, and an ordered waitlist. The targeted numbers in each category will be communicated by an AMS Staff Mathematician based on the budget for the current year. The Chair and AMS Staff Mathematician will review these lists together to finalize awards. AMS staff will submit a summary report to the AMS Council.

Note to the Chair

In support of the AMS Mission Statement to "advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals," the committee should ensure that its processes and recommendations reflect an equitable selection of the highest quality researchers from a variety of institutions.

Committee chairs should be informed, at the beginning of each fiscal period, of the budget of their committees and cautioned to remain within the budget. Such items as travel reimbursement, accommodations, and meals for guests of any kind fall within these budgets. For the purpose of archiving the committee activities, the Secretary maintains a central file system for archiving committee

records. Committee Chairs are asked to submit committee records on a yearly basis. Chairs can submit material at their discretion, and some materials that they may wish to provide are meeting minutes, agenda, and emails. Confidential material should be noted, so that it can be handled in a confidential manner.

AMS Staff Mathematician's Role

1. Serve as the liaison between the committee and the various AMS staff tasked with committee deliverables
2. Coordinate logistics of committee meetings and communications Communicate the targeted numbers in the categories of recommended and waitlisted applications. AMS recommends the committee has at least one conference call to discuss nominees and scoring. Navigating the AMS application review system
3. Assign eligible applications to committee panelists in consult with the Chair
4. May take part in discussion of the nominees
5. Work in collaboration with the Chair to finalize recipients from the committee's recommendations
6. Work in collaboration with the Chair to submit requisite reports and documentation to the AMS Council

Committee's Activities and Responsibilities

Each application will be considered by at least two panelists and assigned both a qualitative measure (e.g., highly competitive, competitive, not competitive, or ineligible) and a quantitative measure (from a rubric). To support the evaluation of applications, the President will appoint at least 15 mathematicians, representative of the diverse application pool this grant program seeks to achieve. Should the number of applications received be greater than 110, the President will appoint additional members to the committee.

In support of the AMS Mission Statement to "advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals," the committee should ensure that its processes and recommendations reflect an equitable selection of the highest quality researchers from a variety of institutions.

The committee will finalize recommendations of recipients, aiming to support the widest range of PUIs as completely feasible.

Timeline:

Submission Deadline: Applications are due on the third Monday in March.

Assignment of Applications: Up to 10 days after close of the submission portal

Committee Review Period: 7 weeks after receiving assignment

Chair & AMS Staff Mathematician Finalize and Communicate Decisions to Applicants: 14 weeks after close of submission portal

The committee will meet collectively, at least twice: once at the beginning of the review cycle and once at end of the review cycle. It is expected that the work of this committee can be accomplished by email and videoconference.

The committee will be responsible for disclosing conflicts of interest and agreeing to keeping this process confidential.

Conflicts of Interest

The following connections between committee members and nominees are conflicts of interest:

1. Residing at the same institution within the past four years,
2. Collaborations (co-authors, post-docs, etc.) published within the past four years,
3. Financial via direct chain of command and/or participation in tenure, promotion, salary or forms of support by either party,
4. Member of the same center or sharing any funding contract,
5. Relationship due to immediate blood relation, current or prior marriage or civil union,
6. Current or prior students, advisees, and advisors,
7. Application or participant in the application package.

Immediately after applications are available for review, committee members should review the list of nominees and disclose to the entire committee any conflicts of interest as described above. The committee should agree on a response based on the level of the conflict. Recusal from scoring and discussion of the person with whom a committee member has a conflict is likely appropriate for most cases. In more serious cases, a new committee member may need to be identified. In less serious cases, disclosure to the committee may be considered sufficient. The chair is responsible for documenting the details of each conflict and the committee's unanimous response in the chair report.

If the chair has a conflict as described above, they should immediately disclose it to the committee. The AMS Staff liaison will step in to head review of that application depending on the level of conflict. The committee minus the chair will vote to determine if the chair must recuse themselves from that application.

Committee members are encouraged to disclose to each other any other formal or informal connections to nominees that are not described above, as the list is not exhaustive. These situations do not necessarily require a response, but open disclosure promotes an environment of transparency across the committee.

Confidentiality and Information Security

Individuals serving on a committee must not disclose information about the committee's business to individuals outside of the selection process. Committee business includes the committee's deliberations, the number of applications reviewed, conflicts of interest, and other sensitive information. The recommended recipients are not official until approved by the Chair and AMS Staff Mathematician using approved AMS policies, and the recipient has been notified.

Statement on Equity, Diversity and Inclusion (as adopted by the April 2019 Council)

The American Mathematical Society is committed to promoting and facilitating equity, diversity and inclusion throughout the mathematical sciences. For its own long-term prosperity as well as that of the public at large, our discipline must connect with and appropriately incorporate all sectors of society. We reaffirm the pledge in the AMS Mission Statement to "advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals," and urge all members to conduct their professional activities with this goal in mind.

Other Activities

In 2013 The Council adopted the following general principle:

For any program, fellowship, prize or award that has a maximum period of eligibility after receipt of the doctoral degree, the selection committee may use discretion in making

exceptions to the limit on eligibility for candidates whose careers have been interrupted for reasons such as family or health.

Authorization

- 01/2023 Council approved grant program
- 11 May 2024 Council, Item 2.5: Added “Additional members can be appointed for variable terms as needed” to the general description.

Past Members

A list of current and past members is available here:

<http://www.ams.org/about-us/governance/committees/simonspui-past.html>

AMS Program Webpage

<https://www.ams.org/profession/opportunities/ams-simons-pui-research>

Mathematical Reviews Editorial Committee (MREC) Report to Council

Executive Summary

MREC encourages the editorial curation of the database, as the journal literature continues to grow at almost 4% per year. Seven journals and one book series were added to the reference list program. MREC passed a motion allowing MSC97 (Mathematics Education) to be used as a primary classification for items in the Mathematical Reviews Database and MathSciNet, consistent with the established usage of other MSC subject classes within Mathematical Reviews.

Report

The Mathematical Reviews Editorial Committee (MREC) held its 2023 meeting on October 2, 2023, as a hybrid meeting, with five members participating remotely and three members participating from the offices of Mathematical Reviews (MR) in Ann Arbor.

MREC members present: Danny Calegari (Chair), Linda Chen (AMS Associate Treasurer), Sergey Fomin, Marlis Hochbruck, Ilse Ipsen, Motoko Kotani, Lucy Maddock (Interim Executive Director), Pham Huu Tiep. Also present: Edward Dunne (Executive Editor), Michael Jones (Managing Editor) and the Associate Editors Andrés Caicedo, Dean Carlson, Matt Causley, Justin Eilertsen, Christopher Elmer, Amanda Francis, Ruoting Gong, Robert Hladky, Heather Jordon, Klaus Kirsten, Alison Miller, Margaret Stawiska-Friedland, James F. Tian, and Ursula Whitcher.

The Minutes of the 2022 Meeting were approved. The date for the next meeting was tentatively set for Monday, October 7. This was later changed to Monday, September 30.

Jones and Dunne presented data about MR and MathSciNet, including statistics on the number of reviewers, rates of failures to return reviews, items added to the MR Database, usage, and the distribution of subject classes (by MSC) among reference list journals.

The AMS Council asked MREC to consider broadening the scope of MathSciNet, in particular to include articles on math education as primary subject areas. In response to the Council's recommendation, MREC approved the following motion:

"As of April 1, 2024, the Mathematics Subject Classification 97 (Mathematics Education) may be used as a primary classification for items in the Mathematical Reviews Database and MathSciNet, consistent with the established usage of other MSC subject classes within Mathematical Reviews."

MREC added 7 journals and 1 book series to the reference list program.

The MR Editorial Statement was reviewed and affirmed. The Committee moved into executive session.

Each MREC member held a small-group meeting with the MR Associate Editors, in accordance with MREC's role as an oversight committee for the Associate Editors of Mathematical Reviews. Some of these meetings were held in-person, others via Zoom.

Sergey Fomin, Chair, Mathematical Reviews Editorial Committee
Edward Dunne, Executive Editor, Mathematical Reviews

Members of the Task Force to Support Mathematics Degree Programs

- Jim L. Brown, Occidental College (Co-Chair)
- Sarah Bryant, AMS Director of Programs
- Michael Dorff, Brigham Young University
- Skip Garibaldi, Institute for Defense Analyses
- Boris Hasselblatt, Tufts University
- Bryna Kra, Northwestern University
- Lucy Maddock, AMS Interim Executive Director
- Juan Meza, University of California, Merced
- Ayse Sahin, Wright State University
- Karen Saxe, AMS Senior Vice President of Government Relations
- Scott Turner, AMS Director of Communications (Co-Chair)
- Ravi Vakil, Stanford University
- Judy Walker, University of Nebraska-Lincoln

2024 Progress Report to Council on Task Force Recommendations

The Committee on Equity, Diversity, and Inclusion (CoEDI) reports annually to Council on the progress the American Mathematical Society (AMS) is making to advance the 10 primary recommendations contained in the March 2021 report, *Towards a Fully Inclusive Mathematics Profession*. The report outlines the historical role the society played in perpetuating institutional racism.

The 10 task force recommendations are listed in bold below. After each recommendation is a brief summary of the AMS's progress towards implementing the specific recommendation.

1. Establish a Vice President for Equity, Diversity, and Inclusion.

In 2021, Council considered a proposal to rescind its 1993 prohibition that Vice Presidents should not be elected with a portfolio. Council did not approve this proposal and noted that the AMS President had the sole power to assign work to Vice Presidents. In 2022, President Ruth Charney assigned Vice President Francis Su to serve on the Committee on Equity, Diversity, and Inclusion (CoEDI) from February 1, 2022 to January 31, 2023.

There has been no other action on this recommendation.

2. Create a high-level staff position on Equity, Diversity, and Inclusion with an Office/Division of Minority Affairs under its purview.

In 2022, Dr. Leona Harris joined the AMS as the Director of Equity, Diversity, and Inclusion. In 2023, the AMS established the Office of Equity, Diversity, and Inclusion. In 2024, the office is working to establish a plan for how it will address the needs of the organization's multiple audiences both internally and externally.

3. Reform election procedures.

AMS Ballot prompts have been modified to allow for the inclusion of a broader range of professional activities, effective with the 2022 election, as described:

1. Name (As you would like it to appear on the ballot)
2. Title
3. Affiliation
4. PhD [Institution, Year]
5. AMS Offices and Committees [Position/Committee, Year in Chronological Order]
6. Selected publications or other forms of scholarship MAXIMUM OF 5 [Provide full citation, including MR number when available]
7. Selected addresses or public presentations MAXIMUM OF 5 [location, nature, year]
8. Synergistic activities (e.g., contributions to diversity and inclusion, mathematics awareness, mentoring, or other outreach activities)
9. Additional experience/qualifications you bring to the position (optional)
10. Candidate Statement (200 words maximum with the exception of Presidential candidates who can write up to 400 words)

Since this 2022 change, there have been no other updates on this recommendation.

4. Reform appointment procedures.

In 2021, the AMS broadened efforts to seek a diverse pool of candidates for committee appointments and roles in governance by working closely with and guiding the Committee on Committees and the Nominating Committee. The AMS regularly promotes the call to self-nominate or to nominate a colleague via Headlines and Deadlines, *Notices of the AMS*, social media, and the AMS website.

In January 2022, the AMS Council approved adding a statement to the charges of the Committee on Committees, Editorial Boards Committee, and Nominating Committee. The statement reads:

The AMS strives for diversity in gender, race, geography, area of mathematics, and type of institution for both its membership and its leadership. The [Committee on Committees or Editorial Boards Committee or Nominating Committee] is expected to keep diversity of all kinds in mind when selecting candidates.

AMS committee members are actively encouraged to suggest names to our AMS committee nomination online form. Communication about opportunities to volunteer have increased, with more ads in the *Notices of the AMS* and more social media reminders. The AMS Membership Department added a link for committee member suggestions to its AMS benefits page.

5. Develop and implement an engagement plan to welcome the participation of Black mathematicians in the AMS.

In 2021, the AMS provided expertise to [AAAS](#) (American Association for the Advancement of Science) in developing departmental review guidelines for its [SEA Change](#) initiative, which is aimed at addressing climate for underrepresented students and faculty in academia. AMS engaged with [TPSE](#) (Transforming Post-Secondary Education in Mathematics) on the implementation of this program in the mathematics discipline.

In 2022, the [National Association of Mathematicians](#) joined as a top-level partner in the [Joint Mathematics Meetings \(JMM\)](#).

In January 2024, Council authorized the creation of the Canvassing Committee. The purpose of this committee is to identify candidates for AMS prizes and awards and for the Fellows of the AMS program and urges members of the community to nominate deserving candidates from populations that may otherwise not be represented among the nominees. The committee can also encourage individuals to apply for AMS fellowships.

In April 2024, the AMS Secretariat hosted a sectional meeting at Howard University, a Historically Black College and University. This sectional meeting attracted more than 600 registrants, making it one of the most well attended sectional meetings in recent history.

The Office of Equity, Diversity, and Inclusion is developing an engagement plan to broaden the participation of Black mathematicians in the AMS.

6. Create and support programs to further the career development of mathematicians of color.

In 2020, the AMS created the 2020 Fund, a new endowment to support the scholarship of Black mathematicians. This fund resides in the restricted endowment and is supported by donations to the Society. It was featured on the 2020 and 2021 end-of-year appeals, and on the 2022 and 2023 dues renewals.

In November 2020, the Board of Trustees established the Diversity, Equity, and Inclusion Fund within the board-restricted quasi-endowment. The spendable income of this fund is to support the Claytor-Gilmer Fellowship.

In 2021, the Claytor-Gilmer Fellowship was established to support the research and scholarship of mid-career Black mathematicians. Information about the Fellowship and awardees is [here](#).

In November 2021, the Board of Trustees created the Inclusive Excellence in Mathematics Pool and provided \$300,000 in funding to provide additional direct cash support and sponsorships for impactful work being undertaken across our profession. These funds are added to longstanding support the AMS provides to a range of organizations and a list of these partnerships can be found [here](#).

In 2022, the AMS Programs that Make a Difference Award was elevated from being a policy committee award to being an award of the society. This award aims to bring more persons from underrepresented backgrounds into the mathematics profession. Information about the Award and recipients is [here](#).

In 2020, the AMS Publishing Division signed the Joint Commitment, led by The Royal Society of Chemistry (RSC). Through this commitment, AMS along with 55 other publishing organizations, will work to set standards for a more inclusive and diverse scholarly publishing community.

In 2023, the AMS was named as a partner in the [Inclusive Graduate Education Network](#). The AMS received funding to develop the IGEN-Math framework which will ultimately work to increase the number of math doctoral degrees earned by students from underrepresented groups.

The Office of Government Relations partnered with the Office of Equity, Diversity, and Inclusion for the first time in March 2024 to host a joint Day on the Hill visit. The purpose of these visits is to advance the AMS's EDI agenda in Congress and to make the Hill visits available to a larger, more diverse group of AMS members. Members were encouraged to ask Congress to grow and diversify the nation's STEM workforce by supporting an increased appropriation for the National Science Foundation. Members were asked to draw Congressional staffs' attention to providing support to the "missing millions" as a way to remain competitive in a global society. These

missing millions include those from historically underserved populations such as women, Black and African Americans, Hispanics and Latinos, low-income individuals, and those from our inner city and most rural areas.

7. Include equity, diversity, and inclusion in the AMS's professional development offerings.

As part of the Office of Equity, Diversity and Inclusion, the AMS has launched a [webpage](#) for EDI, which includes resources and professional development offerings relative to EDI.

Since 2022, the AMS has required event registrants to acknowledge the [AMS Policy on a Welcoming Environment](#).

Since 2022, the JMM call for proposals has listed suggested topics, including "inclusive pedagogy in the mathematical and statistical sciences and curricular practices that promote diversity, equity and inclusiveness in undergraduate and graduate programs."

As part of the annual Department Chair's Workshop, in January 2024, the AMS invited [A Long Talk](#) to facilitate a conversation about the impact of institutional racism and its impact in higher education and the mathematical sciences. Attendees were challenged to identify steps they could take as department chairs to increase access and provide a more inclusive experience for students and colleagues.

In 2023, the Engaged Pedagogy Series, designed to provide mathematical sciences faculty with experiences and resources that strengthen them as professionals and empower their engagement with students learning mathematics, held its inaugural workshop "Mathematical Foundations for Democratic Processes." The overarching topic was a concern for fairness in voting methods and representation systems.

Participants were given tools and resources that could be implemented in a variety of formats, from general education courses to upper-level mathematics seminars. While the pilot of the Engaged Pedagogy Series was well-received, the model of this workshop series did not prove viable. The Office of Programs is working to take the lessons learned from this series into future online professional development offerings.

8. Publicize the expertise of mathematicians of color.

Mathematicians of color are regularly publicized in [Notices of the AMS](#). Further, diverse mathematicians are highlighted through AMS [Posters](#), which are widely distributed. Many of these highlights are possible through collaborations with Living Proof, Latinos and Hispanics in the Mathematical Sciences, Historical Black Mathematicians (with NAM), Mathematically Gifted and Black (with Mathematically Gifted and Black), Latinxs and Hispanics in the Mathematical Sciences (with Lathisms), Celebrating LCBTQ+ Mathematicians (with Spectra).

Mathematical Reviews (MR) restarted in 2023 a collaboration with the National Association of Mathematicians (NAM) to populate its revised website, Mathematicians of the African Diaspora (MAD), with publication information obtained automatically from the MR database. Through this collaboration, NAM members and other visitors to its MAD website will more easily access descriptions of select research and scholarship projects of Black mathematicians. This partnership highlights the research and scholarship of mathematicians from historically underrepresented groups and also strengthens the relationship between the AMS and NAM.

The AMS switched from a single-anonymous peer review model (in which an author's identity is known to the paper's referee) to a double-anonymous model (in which the author's identity is unknown to the paper's referee). The goal of this was to reduce implicit bias in our journals and to publish more high-quality research by authors from underrepresented groups. The policy was enacted in 2021 and put into practice with two journals in 2022. Another journal was added in 2024 and AMS will continue rollout throughout the year.

The following is a listing of the AMS's efforts to amplify the expertise of mathematicians of color in recent years.

2019

[Book](#): *Mathematics for Social Justice: Resources for the College Classroom* - a collection of resources for mathematics faculty interested in incorporating questions of social justice into their classrooms.

2021

[Book](#): *Testimonios: Stories of Latinx and Hispanic Mathematicians* - anthology of 27 first-person narratives, free for AMS/MAA members, one chapter per month on the web.

[Book](#): *A Conversation on Professional Norms in Mathematics* - reflections on the social forces involved in the production of mathematics.

[Mathematical Moments Interview](#): Angela Robinson.

[Mathematical Moments Interview](#): Lorin Crawford.

[News Item](#): A conversation with the editors of *Testimonios: Stories of Latinx and Hispanic Mathematicians*.

[News Item](#): Mohamed Omar awarded inaugural Claytor-Gilmer Fellowship.

[News Item](#): Remembering Gloria Ford Gilmer.

[News Item](#): Remembering Bob Moses.

[News Item](#): Remembering Shirley M. McBay.

[News Item](#): Talithia Williams receives 2022 JPBM Communications Award.

[News Item](#): Rodrigo Bañuelos receives 2022 Award for Distinguished Public Service

[News Item](#): New collaborations blossom at summer Mathematics Research Communities.

[News Item](#): Summer math programs that received Epsilon Awards in 2021.

[News Item](#): Past recipients of the AMS Trjitzinsky Awards share their journeys.

2022

[Book](#): *Count Me In: Community and Belonging in Mathematics* - a guide for building and sustaining a mathematical community, free for AMS/MAA members, one chapter per month on the web.

[Mathematical Moments Interview](#): Tim Chumley.

[Mathematical Moments Interview](#): Malena Espanol.

[Mathematical Moments Interview](#): Stacey Finley.

[Mathematical Moments Interview](#): Rodney Kizito.

[Mathematical Moments Interview](#): Karen Ríos Soto.

[News Item](#): Leona Harris to be AMS Director of Equity, Diversity, and Inclusion.

[News Item](#): Ryan Hynd receives 2022-2023 Claytor-Gilmer Fellowship.

[News Item](#): Bianca Viray receives 2022-2023 Birman Fellowship.

[News Item](#): Mathematically Gifted and Black Founders Win AWM Presidential Recognition Award.

[News Item](#): Diana M. Thomas receives 2023 AMS Dolciani Prize for Excellence in Research.

[News Item](#): University of Texas at Arlington receives 2023 Mathematics Programs That Make a Difference Award.

[News Item](#): Letong (Carina) Hong receives 2023 AMS-MAA-SIAM Morgan Prize.

[News Item](#): Ulrica Wilson receives 2023 Award for Impact on the Teaching and Learning of Mathematics.

[News Item](#): Ten Students receive 2022 Undergraduate Opportunity Awards.

2023

[Headlines & Deadlines Item](#): Gilmer is First Black Woman Mathematician Archived by Library of Congress.

[Headline & Deadlines item](#): Mathematical Moment: Dr. Stacey Finley Discusses Mathematical Modeling in Cancer Research

[Headline & Deadlines item](#): Council Adopts AMS Statement of Apology

[Headline & Deadlines item](#): Balakrishnan Awarded AMS Birman Fellowship

[Headline & Deadlines item](#): Nagloo Awarded AMS Centennial Fellowship

[Headline & Deadlines item](#): Tangpi Awarded AMS Claytor-Gilmer Fellowship

[Headline & Deadlines item](#): AMS Statement in Support of Academic Freedom

[Headline & Deadlines item](#): AMS Membership Supports the Next Generation of Mathematicians

[Headline & Deadlines item](#): Spectra Survey of Mathematics Conference, May 20-21

[Headline & Deadlines item](#): Whitaker to Give the 2023 Einstein Public Lecture

[Headline & Deadlines item](#): Mathematical Moment: Giving Health Care Policy a Dose of Mathematics

[Headline & Deadlines item](#): AMS Member Spotlight (Evans Boadi)

[Headline & Deadlines item](#): AMS Member Spotlight (Mariam Khachatryan)

[Headline & Deadlines item](#): Support the Robert Parris Moses Congressional Gold Medal Act

[Headline & Deadlines item](#): AMS Member Spotlight (Maria Amarakristi Onyido)

[Headline & Deadlines item](#): Whitaker Delivers Einstein Public Lecture

[Headline & Deadlines item](#): AMS Member Spotlight (Phyllis Okwan)

[Headline & Deadlines item](#): Ensor and Jackson to Speak at JMM 2024

[Headline & Deadlines item](#): AMS Member Spotlight (Alexanderia Lacy)

[Headline & Deadlines item](#): Math Moment #166: Bringing Photographs to Life

[Headline & Deadlines item](#): Sellers to Give Invited Address at JMM

[Headline & Deadlines item](#): Urschel to Present AMS Erdős Lecture for Students at JMM

[Headline & Deadlines item](#): Apply for the Claytor-Gilmer Fellowship

[Headline & Deadlines item](#): 2023 AMS Undergraduate Opportunity Awards Announced

[Headline & Deadlines item](#): Pineda Wins 2024 Award for Distinguished Public Service

[Headline & Deadlines item](#): Register for the 2024 AMS Workshop for Department Chairs and Leaders

[Headline & Deadlines item](#): Suzanne Weekes to Give AMS Lecture on Education

[Headline & Deadlines item](#): "Journeys of Black Mathematicians, Part 1" Premieres at JMM 2024

[Mathematical Moments](#): Interview with Dr. Rekha Thomas

[Mathematical Moments](#): Interview with Dr. Imelda Flores Vazquez

[Mathematical Moments](#): Interview with Dr. Stacey Finley

[Mathematical Moments](#): Interview with Rodney Kizito

[News item](#): Nagloo Awarded 2023-2024 AMS Centennial Fellowship

[News item](#): Tangpi Awarded 2023-2024 AMS Claytor-Gilmer Fellowship

[News item](#): Balakrishnan Awarded 2023-2024 AMS Birman Fellowship

[Feature story](#): Whitaker Delivers Einstein Public Lecture at University of Cincinnati

[News item](#): Caffarelli Receives 2023 Abel Prize

[News item](#): Teens Win AMS Menger Awards at 2023 ISEF

[News item](#): Support for Summer-Camp Directors Available from AMS

[News item](#): José Ramón Madrid Padilla Awarded Inaugural Stefan Bergman Fellowship

[News item](#): Pineda Wins 2024 Award for Distinguished Public Service

[Book](#): *Aspiring and Inspiring: Tenure and Leadership in Academic Mathematics* - a collection of essays from successful women and gender minority mathematicians on what it takes to build a career in mathematics.

2024

[Headline & Deadlines item](#): Young Wins 2024 Rolf Schock Prize

[Headline & Deadlines item](#): GranvilleFest 100: Celebrating the Legacy of Evelyn Boyd Granville

[Headline & Deadlines item](#): Hynd, Park, and Song to Speak at the Spring Eastern Sectional Meeting

[Headline & Deadlines item](#): Washington to Present the 2024 Einstein Public Lecture in Mathematics

[Headline & Deadlines item](#): Apply for the Roots of Unity Workshop

[Headline & Deadlines item](#): Register for the 2024 Spring Eastern Sectional Meeting at Howard University

[Headline & Deadlines item](#): Walton Awarded 2024-2025 Claytor-Gilmer Fellowship

[Headline & Deadlines item](#): View the Film *Journeys of Black Mathematicians Part I*, at the Spring Western Sectional (not yet archived)

[Mathematical Moments](#): Interview with Dr. Abiy Tasissa

[Feature story](#): Sharing Research, Making Connections: A Tale of Two Mathematicians at JMM

[News item](#): Walton Awarded 2024-2025 Claytor-Gilmer Fellowship

[News item](#): Young Wins 2024 Rolf Schock Prize

9. Request that the AMS provide annual updates on the status of these report recommendations.

Since 2022, CoEDI has provided a yearly report to Council relative to these recommendations.

10, Accept responsibility for not fulfilling the AMS's own commitment to increasing the participation of mathematicians of color in the profession, including Black mathematicians.
In 2023, Council adopted a [Statement of Apology](#).

There has been no other action on this recommendation.

2023 Annual Report Committee on the Profession (CoProf)

The American Mathematical Society's Committee on the Profession (CoProf) met September 21-22, 2023 at the AMS headquarters in Providence, RI and by Zoom video conference. Jim Brown chaired the meeting.

Executive Summary: The agenda spanned a broad scope of proposals for consideration and appointed six subcommittees for its work in 2024. Additionally, CoProf recommended that Council establish a Taskforce on Cuts to Degree Programs in Mathematics. The subcommittees are: 2025 JMM Panel: *AI and the Profession*; Joint Subcommittee with CoMC: Holding Meetings in Localities with Discriminatory Practices or Laws; Joint CoE Standing Subcommittee on Teaching Assistants and Instructional Faculty; Standing Subcommittee on Members and Member Benefits; Membership Requirements for the AMS-SIAM George David Birkhoff Prize (joint committee with SIAM). As the topic for its next annual review, CoProf decided to continue the work of the subcommittee, AMS Human Rights Activities/Membership in the Science and Human Rights Coalition for the Association for the Advancement of Science (AAAS) chaired by Raphaël Rouquier.

Council Action Items

- **Task Force to Support Mathematics Degree Programs** Staff asked CoProf to recommend establishment of a taskforce focused on threats to mathematics programs in higher education. The Secretary worked with AMS staff to prepare a charge and brought the recommendation to the January 2024 Council meeting. The Council then approved the creation of the Taskforce.
- **AMS membership and residency requirements for Fellowships** Continuing discussion started at June 2023 Semi-annual meeting, CoProf noted a lack of consistency of AMS membership and residency requirements across AMS Fellowships. Boris Hasselblatt prepared a proposal for presentation to the Prize Oversight Committee. The language was sent to POC and then approved by Council at the January 2024 meeting.
- **Policy Statements and Guidelines by the Society, Council, Board of Trustees and Committees** CoProf voted to send language outlining a review procedure for policy statements and guidelines to Council. At the January 2024 meeting, Council approved these review guidelines and asked CoProf to proceed with work beginning in 2024.
- **Subcommittee Report: Joint Committee on Meetings and Conferences (CoMC) Subcommittee on Holding Meetings in Localities with Discriminatory Practices or Laws** The subcommittee presented feedback questions for the AMS Meetings page. CoProf unanimously recommended that Council add this to the AMS Sectional Meetings webpages.

Reports and Discussion (without Council Action Items)


- **Discussion: Training for Most U.S. Professors** CoProf discussed an article published in *Nature*, *Most U.S. professors are trained at the same few elite universities: Jarring study reveals hiring bias at U.S. institutions*. The committee agreed more information needs to be obtained before creating a subcommittee.
- **Discussion: Mathematics Research Communities (MRC) Structure** The Director of Programs discussed the MRC program ahead of the upcoming NSF proposal. Edray Goins suggested connecting already-established groups of African American and Latinx

mathematicians to MRCs. CoProf echoed the MRC Advisory Board's concerns about math education research and how it may be misaligned for inclusion in the MRC program.

- **Discussion: Mathematical Association of America (MAA) program review guidelines**
The MAA asked for AMS input on possible updates to MAA's Program Review guidelines. Edray Goins, Ron Buckmire, and Malcolm Adams volunteered their time to complete this review in October 2023.
- **Subcommittee Report: Members and Member Benefits** This standing subcommittee prepared a report on engagement development, membership retention, and drivers of change for professional societies. The committee was asked to change the names for the dues tiers for members from "regular," "low," and "medium."
- **Subcommittee Report: Mitigating the Effects of the COVID-19 Pandemic on the Profession** This subcommittee was charged with exploring what AMS can do as a professional society to directly support faculty and students. After a submission of the subcommittee's report was returned from *Notices* editors with significant revisions requested, the subcommittee chose not to pursue publication. CoProf agreed that the work of the subcommittee was complete.
- **Subcommittee Report (Joint with Committee on Education (CoE)): Teaching Assistants and Instructional Faculty** This subcommittee prepared a report addressing issues, concerns, and needs related to mathematics instruction with particular attention to mathematicians who are not in a tenured or tenure-track position. Recommendations included publishing a *Notices* article on the subcommittee's findings, hosting a webinar to expand the reach of the JMM panel on this topic, and updating the AMS text *Teaching Mathematics at Colleges and Universities: Case Studies for Today's Classroom — Graduate Student Edition* from 2001.

CoProf held a mid-year virtual meeting April 1, 2024 and its next annual meeting will be October 24-25, 2024 at AMS Headquarters in Providence, Rhode Island.

*Prepared by Sarah Bryant, Director of Programs
Reviewed by Raphaël Rouquier, CoProf Chair
April 2024*



Committee on Publications (CPub)
2023 Annual Meeting
SUMMARY REPORT

A meeting of the AMS Committee on Publications (CPub) was held on September 22-23, 2023 at AMS headquarters in Providence, RI and via Zoom web conference. Steven Bradlow, Chair, presided.

Executive Summary: The agenda included a number of discussion items related to publishing and a summary of actions taken on 2022 CPub recommendations. In 2023, a review of the AMS Primary Journals was conducted by a subcommittee and presented to CPub. In keeping with its review cycle, in 2024 a CPub subcommittee will conduct a review of the Member Journals (*Abstracts of the AMS*, *Bulletin of the AMS*, *Notices of the AMS*) and Other Journals (electronic only, translation, and distributed journals). An Advisory Group on Artificial Intelligence (AI) was formed in 2023 and the Chair asked each policy committee for their input as to what the Committee should be focusing on. Given the importance of AI in publishing, a subcommittee will be formed to organize a CPub sponsored panel on Artificial Intelligence at the 2025 JMM.

The next CPub meeting will be held October 25 and 26, 2024 at AMS headquarters in Providence, RI.

Actions taken by CPub:

- **CPub Business by Technical Means – *the following items were approved by consent:***
 1. The minutes of the September 2022 CPub meeting.
 2. The Charge Statement for the CPub Subcommittee Reviewing the AMS Primary Journals.
 3. The section “Use of Artificial Intelligence of Authoring” was added to the [Ethical Guidelines and AMS Journals Policies](#) page.
- **CPub Subcommittee Review of the AMS Primary Journals** - Steven Bradlow, Chair of CPub and a member of the subcommittee that conducted the 2023 review of the AMS Primary Journals, *Communications of the AMS* (CAMS), *Journal of the AMS* (JAMS), *Mathematics of Computation* (MCOM), *Proceedings of the AMS* (PROC), and *Transactions of the AMS* (TRAN), presented the report prepared by the subcommittee. A meeting of the Managing Editors/Chairs also took place on Friday, September 22 and the subcommittee report was included in their agenda. Managing Editors also attended the CPub meeting. The subcommittee’s overall conclusion was that the AMS primary journals are in good health. They maintain high standards, are well managed, and are successfully serving the needs of the mathematical community.
CPub recommended sharing the subcommittee report with Council. A “confidential” copy of the report will be sent to Council members separately from the CPub summary report due for the May 2024 meeting.

- **Transactions of the AMS (TRAN) Editorial Board** - Currently, the TRAN editorial board is organized in sections led by coordinating editors, a structure usually overseen by the Editorial Boards Committee (EBC). As recommended by the EBC, in November, 2022, Managing Editor, Dan Abramovich contacted CPub Chair Steven Bradlow and Secretary Boris Hasselblatt with a proposal to merge the two groups, Probability & Combinatorics and Analysis & Dynamics. CPub Chair Bradlow and Secretary Hasselblatt (along with the EBC) raised no objections to this temporary plan and agreed to discuss this further with CPub.

CPub agreed that the Committee should stay informed, but not be involved with the day-to-day operations of the editorial board and that the Managing Editor should have the ability to restructure as they see fit.

- **Notices Report on Journal Backlogs** - The “Backlog of Mathematics Journals” report is published annually in the *Notices of the AMS*. The report includes backlog status across mathematics journals. In 2019, AMS staff recommended to CPub that the report be discontinued. At that time, the consensus was that the article is a service to the community and should continue to be published in the Notices. Publishing staff again proposed discontinuing the report.

CPub recommended continuing the Notices backlog report. Publishing staff will work on improving the procedures for collecting publisher backlog data and report back to CPub on their progress at the 2024 meeting.

- **Update on Double Anonymous Peer Review (DAR)** - Associate Executive Director Robert Harington gave an update on the implementation of double anonymous peer review for *Proceedings of the AMS* (PROC) and *Representation Theory* (ERT) and the plan for other AMS journals. *Transactions of the AMS* is in progress, but in the early stages (technical updates need to be implemented in EditFlow first). DAR is still a heated topic; we are implementing DAR for other journals even with some level of protest.

CPub requested that the collection of demographic data in the publishing area be prioritized and that a subcommittee be formed for the purpose of assessing what data should be collected.

- **Editorial Oversight of Miscellaneous Non-Series Books** - Unlike all other AMS book series, there is no editorial board oversight/review for MBK publications. An ad hoc subcommittee consisting of CPub members were charged with reviewing the acquisitions process for AMS non-series books (MBK) and whether modifications to this practice were needed.

The subcommittee had not yet completed its work and upon further discussion, CPub agreed that the Society already has advisory committees that could be utilized and endorsed a policy that when an editor has a concern about a “Miscellaneous” publication that is deemed controversial, they should send a formal request to the Editorial Boards Committee (EBC) and AMS Communications for input. CPub discharged the subcommittee with thanks.

- **Memoirs of the AMS Journal Web Page Language** - The *Transactions* and *Memoirs of the AMS* (MEMO) editorial board proposed adding the following two paragraphs to the various landing pages and submission pages for [MEMO](#).

CPub approved adding the following two paragraphs to the [MEMO Author & Submission Information](#) page:

1. *All contributions will be initially assessed by the handling editor for suitability for the journal. Typically, the editor seeks a number of expert opinions to assist in the process. Papers deemed suitable by the handling editor are discussed within the board to determine whether or not the submission should be sent for full review. After a full review process, the submission may be discussed again within the board, and a recommendation to accept may be made to the journal's leadership.*
2. *Since 2022, the journal is implementing stringent backlog reduction measures, and therefore comparison with published manuscripts does not indicate the standards expected of manuscripts under review.*

Informational reports and actions taken on 2022 CPub recommendations:

- **Annual Reports** - Annual reports on important activities of the Society were provided by the AMS Publisher, the AMS Executive Editor for Mathematical Reviews/MathSciNet®, and the Interim AMS Executive Director.
- **Submission Statements for AMS Research Journals** - After taking into consideration recent feedback from the Web of Science (WoS)/Clarivate (indexers of our journal content) and in consultation with CPub Chair Bradlow and AMS Secretary Hasselblatt, AMS staff updated the Peer Review section of each AMS journal overview statement as follows: *"All articles appearing in this journal are peer reviewed by external reviewers. Editors may reject papers without external review that are not suitable for publication in the journal due to reasons that include, but are not limited to, subject matter or clear weaknesses in scientific content or presentation style."*
- **Modifying the Journal Overviews to Reflect Quick Reject** - CPub was asked to consider changing the journal overview statements to reflect the practice of quick reject and the future incorporation of double-anonymous review. Due to a subsequent redesign of the journal pages, the journal overview statements were updated on each journal webpage as stated in the **"Submission Statements for AMS Research Journals"** item.
- **AMS eBook Program Update** - Associate Executive Director for Publishing Robert Harington provided a brief summary of current progress on eBook development at the AMS. ePUBS are in progress, mostly for the *Graduate Studies in Mathematics* (GSM) series.
- **Open Access Landscape** - In addition to updating the AMS Primer on Open Access for internal business purposes, a [public version](#) was created in November 2022 that has been shared widely. Robert Harington and Karen Saxe plan to meet with the NSF again in 2024. The AMS is publishing its first Open Access eBook under a Creative Commons license in 2024 (in the *Contemporary Mathematics* series).

Executive Summary of Committee on Education (CoE) activities from May 2023 to March 2024:

- CoE organized the hybrid 2023 Education Mini-conference on “Enhancing graduate programs in the mathematical sciences for student success”.
- CoE hosted a JMM 2024 panel entitled “Mathematics online: PDFs and issues regarding accessibility”.
- A subcommittee of CoE is actively engaged in the use the MSC code 97 (mathematics education) in MathSciNet.
- As was done in 2022 and 2023, CoE will do Hill visits in conjunction with their annual meeting in September 2024.

Christine Berkesch (CoE chair) is available to answer questions.

Report of Committee on Education (CoE) activities from May 2023 to March 2024:

- CoE members were given the opportunity to visit offices of their federal elected representatives. Prior to the start of the annual fall CoE meeting, seven CoE members and the AMS Office of Government Relations advocated for federal support for mathematical sciences education. Specific topics included the Mathematics and Statistics Modeling Education Act and the Department of Education’ Graduate Assistance in Areas of National Need (GAANN) Program. Hill visits for CoE will continue in September 2024.
- During its annual fall meeting, CoE planned the hybrid 2023 Education Mini-conference on “Enhancing graduate programs in the mathematical sciences for student success”. Participants Topics included. Sessions included a panel on graduate education support from federal agencies and a keynote address from Talitha Washington (Atlanta University Center).
- A CoE subcommittee reviewed the AMS’ portfolio of programs and activities related to graduate education and recent PhD recipients. Their report can be found in the CoE 2023 annual meeting minutes.
- A CoE subcommittee organized a JMM 2024 panel on “Mathematics online: PDFs and issues regarding accessibility”. This panel discussed opportunities and challenges for making mathematics more accessible, noting state and federal legislation that could affect higher education course materials.
- Together with Council, CoE asked the AMS to adjust how the MSC code 97 (mathematics education) is used in MathSciNet. A CoE subcommittee is charged with tracking progress and will continue its work through September 2024.

- CoE drafted the “Statement on Standardized Testing and Graduate Admissions in the Mathematical Sciences” for Council to consider. This statement was adopted by Council in January 2024.

2023 State of the AMS Report

2023 was a year of both transition and growth for the American Mathematical Society. Dr. Catherine Roberts, AMS Executive Director (ED) from 2016 to 2023 announced her resignation in March, and the next several months were dedicated to transition planning. In May, I was appointed by the AMS Board of Trustees (BT) to serve as Interim ED, in addition to my ongoing position as Chief Financial Officer (CFO), effective July 1, 2023, through June 30, 2024. Upon notice of Robert's resignation, the *Executive Director Search Committee*, supported by the Executive Office and consisting of the BT and the AMS Secretary, began a nine-month, nationwide search. In January 2024, the BT announced the appointment of Dr. John Meier, the provost and David M. and Linda Roth Professor of Mathematics of Lafayette College, as the new Executive Director of the AMS. He will begin a five-year term on July 1, 2024, and we are very excited to welcome him aboard.

Like everywhere, change has been a consistent theme at the AMS over the past four years. As the world navigated the challenges of the COVID-19 pandemic, many companies experienced increased employee turnover in a period known as the "Great Resignation". The AMS was no exception to that trend; however, employee numbers have since stabilized. Particularly noteworthy is that 2023 marked the year with the lowest employee turnover since 2018, and we expect this stabilization to continue in 2024.

In August, the BT approved a new organizational structure for the Society upon the recommendation of RW Jones, a strategic consulting firm focused on the education space. The seven previous divisions were transformed into three divisions, allowing for greater collaboration and a streamlined reporting hierarchy for staff. Additionally, Ashley Northington, MPA, the Senior Vice President and Managing Director of RW Jones, was brought on as the AMS's Interim Chief External Relations Officer. Despite the ongoing transitions within the organization, staff have been successfully adapting and steadily supporting the AMS's mission of advancing research and connecting the mathematical community.

In January, the first in-person reimagined Joint Mathematics Meetings (JMM) (and first in-person annual meeting since January 2020) took place in Boston, MA with sixteen partner societies and 5,140 participants. The Meetings Department worked closely with the partners to arrange their program and exhibits and solicited their input for the Grand Opening Reception. The meeting was a great success, and seventeen partners were secured for 2024. The AMS also held seven sectional meetings in: Atlanta, Georgia; Cincinnati, Ohio; Fresno, California; Buffalo, New York; Omaha, Nebraska; and Mobile, Alabama. The spring Eastern Sectional was held virtually.

In addition to hosting successful in-person meetings, 2023 was also notable for achievements in membership growth and retention. There were 6,769 new member enrollments, a record number and 1,400 more than in 2022. This figure includes 2,250 new dues-paying members. Increased efforts on membership retention paid off with 952 more members renewing in 2023 than in 2022, the first record-breaking increase since 2019. This will continue to be an area of focus.

The AMS continued to expand its services and resources for the mathematical community. Two new programs were launched: the Stefan Bergman Fellowship and the AMS-Simons Research Enhancement Grants for PUI Faculty, and five new prizes were established: the Ivo and Renata Babuška Thesis Prize (awarded in 2024), the Elias M. Stein Prize for New Perspectives in Analysis (awarded in 2024), the Elias M. Stein Prize for Transformative Exposition (to be awarded in

2025), the Elias M. Stein Mentoring Award (to be awarded in 2026), and the I. Martin Isaacs Prize for Excellence in Mathematical Writing (to be awarded in 2025).

Additionally, the Office of Equity, Diversity, and Inclusion and the Division of Meetings and Professional Services (now both part of External Affairs) secured NSF supplemental funding for a new AMS partnership with the Inclusive Graduate Education Network (IGEN), an alliance of disciplinary societies, research centers, and other organizations dedicated to advancing equity in STEM graduate education. The proposed IGEN Mathematics Initiative (IGEN-Math) is a one-year national capacity-building project whose team will work closely with internal and external stakeholders, including IGEN Alliance partner organizations and the IGEN-Math Advisory Group, to engage the mathematics community in the development of a framework for a centralized hub of bridge programs in mathematics intended to improve equity and inclusion in mathematics graduate education.

As part of the AMS's ongoing accessibility initiative, MathViewer (accessible html) was expanded to include all primary journals and added to ePub production workflows, beginning with a retrospective conversion of the *Graduate Studies in Mathematics* series. The MathViewer journal article output increased from 275 articles to 939. The AMS is also now in full compliance with existing open access journal mandates through zero-embargo Green OA, Diamond OA, and Gold OA (on the B journals). In addition, the new user interface of MathSciNet was released in June, the first major revision since 2006. The new interface incorporates a modern look, greater use of the database to help users refine their searches, and much improved accessibility, especially for users with vision impairments or fine motor control limitations.

Each year, speakers bring science directly to Capitol Hill decision-makers via congressional briefings organized by the Office of Government Relations (OGR). They offer stories of how federal investment in basic research in math and science pays off for American taxpayers and helps the nation remain a world leader in innovation. Beginning in 2023, each briefing will highlight work connected to one of the NSF-funded Mathematical Sciences Institutes; last year's was in partnership with the Institute for Pure and Applied Mathematics (IPAM). The AMS helped organize and host the following briefings with various coalitions: "Investing to Win: The Essential Role of Federally Funded Research", "Federally Funded Research and the Advent of Artificial Intelligence: A TFAI Deconstructing Event", "The National Imperative to Develop STEM Talent: Why the Investment in Education Matters", and "STEM 101."

The Office of Government Relations also made over one hundred visits to Congressional and Executive Branch offices, both with AMS leadership and in partnership with various coalitions. In addition, they support the work of the *Advisory Group on Artificial Intelligence and the Mathematical Community* which is charged with focusing on issues that are at the forefront of developments in AI, including: the role of mathematics in the development and deployment of artificial intelligence, the use of AI in publications, education, and research, and its impact on research in mathematics and our community.

As OGR was building relationships in Washington, D.C., our Communications and Marketing Department focused on building community and conveying the AMS brand through the organization's communications. Together with Creative Services, they implemented a marketing and promotion campaign planning process to help departments meet their messaging objectives and in particular to advance AMS strategic priorities. This process created a cohesive visual and messaging brand for all the pieces of a campaign, including social media, advertising, meeting

materials, brochures, website graphics, and email images. Additionally, by planning, creating, and implementing content for each type of platform, there was a 234-percent increase in users of AMS social platforms and a 221-percent upsurge in impressions, the number of times AMS content was seen.

Led by the Secretary's Office, the AMS is conducting a comprehensive analysis of the bylaws to ensure that they are aligned with the current legal landscape, that they serve the organization as well as possible, and that they reflect the AMS's values. As part of this analysis, legal counsel was consulted and asked to assist in bringing the bylaws into compliance with ambient law and to make additional suggestions for possible improvement. A Bylaws Review Taskforce was created, and its recommendations will be brought to Council in January 2025. The Secretary's Office also worked with Information Services to create a search portal for members of the Committee on Committees and Nominating Committee to view information about past members of AMS committees. This tool will be helpful in recruiting election candidates and committee members, and the hope is that it can eventually be expanded.

In the area of Planned Giving, the AMS saw several gifts from estates of over a million dollars, following almost a decade of patient preparation and stewardship. With guidance and encouragement from the CFO and the Development Committee, the Development Department revised the gift acceptance policy and the AMS Book Fund to provide both more flexible and more enduring support for the AMS. Also, the hiring of a Development Communications Officer has increased the AMS's capacity to apply for grants from foundations and government agencies.

In other highlights, beginning in 2022 and continuing into 2023, Human Resources designed and implemented a formal internship program for graduate and undergraduate students. The AMS will look to partner with local colleges to see if we can provide recurring opportunities for both work-study students as well as traditional internship opportunities. This internship program allows students to become involved with the organization and connect with other members of the mathematical community.

After careful calculation, we determined that we were eligible to apply for the Employee Tax Retention Credit (ERTC) under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), enacted March 27, 2020. This is a payroll tax credit aimed at employers impacted by the COVID-19 pandemic. As a result, the AMS will be receiving \$2,727,926 in future credits. Additionally, approximately 1,100 statements and 800 payments went out to authors in mid-April for 2023 sales and royalties. Over \$350,000 in royalty payments were processed. Finance Division staff are continuing to attempt making contact with about 500 authors who are missing tax or other documentation needed to process payment.

The Computer Sciences Division was involved in two critical projects, one to become compliant with version 4 of the Payment Card Industry's Data Security Standards (PCI-DSS) and a second to select and implement a software package for collection and remittance of sales tax in all states in which the AMS has nexus. More applications were integrated into Single Sign-On with multi-factor authentication and the network firewalls in Providence were upgraded to next-generation models with enhanced threat detection.

2023 was marked by both significant transitions and notable accomplishments, and the AMS is well-positioned to build upon its successes. Employee turnover stabilized, and the implementation of a new internal organizational structure created a more collaborative environment for staff. The Society organized and held its first in-person JMM since January 2020

and saw achievements in accessibility, outreach, development, campaign planning, membership, programs offered to the community, and more. Despite the challenges of 2023, the AMS thrived, and I look forward to what is ahead for the organization under Dr. Meier's leadership.

Lucy Maddock, Interim Executive Director
April 24, 2024

Equity, diversity, inclusion, and artificial intelligence: Issues for mathematicians to consider

Version of February 4, 2024 prepared by Duane Cooper and Akshay Venkatesh in consultation with Joseph Hibdon, Jr. and Monica Jackson.

[Reports](#) have brought considerable attention to and alarm about risks of artificial intelligence – for example, development of biological weaponry, initiation of cyber attacks, override of human control – that can adversely affect *all* people. But numerous concerns are also raised about adverse effects of AI, whether due to intentionality or carelessness, on *some* people. These concerns are the basis for our consideration of equity, diversity, and inclusion as AI becomes more prominent in our discipline and our profession.

New research and outreach opportunities for mathematicians.

Fairness and equity in machine learning are subjects of great social concern on an array of matters – predictive policing, hiring and selection algorithms, medical diagnoses, grant or denial of bail, etc. Mathematicians can solve problems and contribute to the discourse around these matters of racial, gender, and other biases that are endemic to or arise in some algorithms.

On the one hand, there is much mathematical research activity in this direction. For example these topics were the basis for a recent [semester program](#) at the Simons Laufer Mathematical Sciences Institute (SLMath), where scholars gathered to conduct research on ways to address issues of fairness and equity in the context of machine learning algorithms.

On the other hand, mathematicians also have a role in communicating about these topics to the general public – translating between the mathematical abstractions of algorithms and our day-to-day experience using these tools. An example of such an exposition is the essay "[Understanding social media recommendation algorithms](#)" by Narayanan.

Large data sets: ethical issues and equity.

The use of large data sets in the training of large models raises many questions. How was the data obtained? Who controls it, and who can use it?

For example, the work of artists has been used without their permission to train models that produce art; similarly, publicly available mathematical papers are already being used to train models specifically to do mathematics.

Individuals should have agency in how their data and their work is used and made accessible. Repositories of papers, such as the arXiv and the Public Access Repository of the National

Science Foundation, should be encouraged to have transparent policies about these issues so that authors can make informed decisions.

Ethical implications abound regarding data sources upon which AI systems are trained – harvesting, privacy protection, ingrained bias, etc. Usage of these systems may further compound these issues. Ensuring broad and equitable access to such training sets may become an important issue.

Use of large language models for selection and hiring in mathematics.

It seems almost inevitable that large language models will be used, or already are being used, to ease the human burden of very time consuming tasks, like those of finding and evaluating people, including: hiring and promotion; identification of speakers; selection of undergraduates for opportunities; reading applications for graduate schools. This raises both privacy concerns and legal issues (for example, as discussed in this [EEOC](#) document; see also [an article about admission algorithms at U. Texas](#) and [an article evaluating the use of machine learning in graduate school admissions](#)). The possibilities call for thoughtfulness in our evaluation tools, such as the Boyer model of scholarship, for decision making, and in selection of AI systems

The National Science Foundation [adopted a policy](#) in mid-2023 on the use of generative AI in its merit review process. Reviewers are now “prohibited from uploading any content from proposals, review information and related records to non-approved generative AI tools.” A key consideration for the NSF policy is maintaining privacy for proposers, which may not be an issue in other situations.

The AMS should consider implementing appropriate policies or offering recommendations around these issues.

Increasing access to mathematics?

There are specific tasks which may be within, or near, the capability of modern AI that could broaden access to research-level mathematics. For example, automated transcription of mathematical talks, or automated effective translation of mathematical texts between languages. In both cases, it may be helpful to develop tools that are specialized for mathematics, and the AMS may have a role to play in facilitating this.

Artificial intelligence can be expected to affect mathematics instruction, both what is taught and how. As these adaptations are made to instruction, we must do so broadly and equitably so that some students are not left behind from contemporary tools and expectations.

Questions Artificial Intelligence Raises for the Mathematics Profession

Version of January 30, 2024 prepared by Heather Macbeth and Emily Riehl

Below we list some questions that AI raises for the mathematics profession. We discuss the role of mathematicians in conversations about AI in the public sphere, the effects AI may have on the economics of the profession, and the role that AI may play in our non-research and research work lives.

What role can mathematicians play in the public conversation around AI?

We argue that mathematicians should play a role in this conversation because:

- We have a domain to offer in which AI success can be measured objectively: Mathematical text and particularly computer formalized mathematical text can be checked for correctness.
- We are more immune than other fields to being intimidated by mathematical or technical language.
- We have a mode of understanding that could be used to create clear standards for messy questions (fairness, explainability, attribution, appropriate use of data).

To illustrate the last point, we point to the role mathematicians have played in quantifying questions of gerrymandering.¹

We think mathematicians should participate in conversations concerning:

- The suitability of AI tools for a particular application in the public sphere.
- The assessment of biases in AI tools under development, and methods by such tools could be regulated.
- Questions on where training data comes from and quantifying attribution for AI generated work.

How might AI affect the economics of the mathematics profession?

The mathematics profession today benefits from the fact that mathematical skills are valued in numerous well-paid jobs from industry to academia. These jobs are the destinations for current and former undergraduate mathematics students, undergraduate mathematics majors, math grad students, postdocs, mathematics educators, and professional mathematicians.²

The decades-long boom in the tech industry has buoyed the mathematics profession as public investment has lessened. If tech work requires less of a mathematical mindset, how does this

¹ <https://www.quantamagazine.org/how-math-has-changed-the-shape-of-gerrymandering-20230601/>

² <https://www.bls.gov/ooh/math/mathematicians-and-statisticians.htm>

affect the economic opportunities of mathematics students? And if student enrollments fluctuate, does this affect the size of mathematics departments?³

As AI tools for teaching and grading mathematics develop, will this affect the staffing levels required to teach mathematics courses? This could have far-reaching effects on educators at all levels, including the availability of mathematics jobs and graduate teaching stipends.

How can AI assist mathematicians with the non-research aspects of our work and should it?

We could envision AI tools contributing in the following way:

- In the drafting of papers: typesetting handwritten mathematics, drawing diagrams in LaTeX, fixing LaTeX bugs, drafting prose for introduction or background sections, transcribing dictated notes, helping with grammar and spelling (particularly for non-native speakers)⁴
- In improving the accessibility of the mathematics literature: by translating mathematical texts between languages, by transcribing spoken mathematics into text, by narrating written mathematics (particularly in LaTeX or involving diagrams)
- In the review of papers: summarizing the technical contents for editors in a different field, verifying correctness of mathematical arguments (if proofs are accompanied by computer formalizations), identifying related work⁵
- In hiring and admissions: filtered large application pools according to some committee-designed attributes
- In many aspects of teaching: assistance in grading, in lecture note preparation, in creating homework and exams (perhaps modifying for individual students or sections)
- In administrative work: creating documents for internal use, writing emails⁶

To be clear, we do not necessarily endorse all of these potential applications.

It's quite likely that mathematicians will want to be directly involved in the development of some of these tools, in the way that LaTeX has always been partially developed by hobbyists. We hope for a vibrant ecosystem that is not dependent on a small number of big tech providers or expensive proprietary software.

As a community, we must have a proactive conversation about the ethics of the development of and uses of AI.

³ <https://www.newyorker.com/news/us-journal/an-academic-transformation-takes-on-the-math-department>

⁴ A few AI assistants for Overleaf are available on the chrome web store: see <https://chromewebstore.google.com/detail/latex-ai/bcmccneppjkhpcpojnebonhbgcolbhj> or <https://chromewebstore.google.com/detail/latex-ai/bcmccneppjkhpcpojnebonhbgcolbhj>

⁵ Some policies regarding the use of AI for both authors and reviewers are here: <https://epubs.siam.org/artificial-intelligence>, <https://publicationethics.org/resources/discussion-documents/ai-artificial-intelligence-decision-making> and <https://new.nsf.gov/news/notice-to-the-research-community-on-ai>

⁶ <https://www.theguardian.com/us-news/2023/feb/22/vanderbilt-chatgpt-ai-michigan-shooting-email>

- All of the hypothetical software mentioned above will have been trained on the output of countless hours of careful work by mathematics professionals. Does the AMS want to defend the collective output of mathematicians over the decades?⁷
- What uses of AI software in decisions with human impacts (grading, hiring, admissions, peer review) are fair and appropriate?
- How do we compensate mathematicians (and tech companies) who develop useful tools for our community while ensuring their broad access?
- Should we develop norms concerning the disclosure of AI in writing that reflect nuances of different hypothetical use cases?⁸
- How do we ensure proper attribution of mathematical ideas that are disseminated by AI?

What roles might AI play in mathematics research?

We can envision a few potential uses of AI in mathematics research. Others will undoubtedly emerge.

A computer proof assistant (such as Agda, Coq, HOL Light, Isabelle, Lean, ...) is a software program that checks the correctness of mathematical arguments in these logical languages and may provide automation to help construct such arguments.⁹ Independent of developments in AI, researchers have been working in the last decades to make such computer proof assistants more powerful and user-friendly and mathematicians are increasingly adopting them to formally verify work in their own areas. Large language models (LLMs) can develop text, written in a conversational language but also in programming languages, and notably in the logical languages of computer proof assistants. One plausible pipeline is that LLMs could iteratively develop such proofs by incorporating the feedback on line-by-line correctness provided by proof assistants.

Some mathematicians are already using AI as a collaborator in mathematical discovery (as opposed to proof).¹⁰ This involves considerable work in developing traditional computational tools to provide the source data in which the AI searches for patterns. There is also art in framing the questions of interest to mathematicians in a way amenable for AI (eg as an error-tolerant optimization problem). Natural uses of AI also suggest themselves in certain needle in a haystack problems that involve searching for interesting mathematical objects with various properties; these can often naturally be framed as optimization problems.¹¹

⁷ At least one LLM explicitly acknowledges the arXiv as one source of its training data:

<https://arxiv.org/abs/2302.13971>

⁸ <https://publicationethics.org/cope-position-statements/ai-author>

⁹ https://en.wikipedia.org/wiki/Proof_assistant

¹⁰

<https://www.quantamagazine.org/deepmind-machine-learning-becomes-a-mathematical-collaborator-20220215/>

¹¹ A great example is provided by Adam Wagner's paper "Constructions in combinatorics via neural networks" <https://arxiv.org/abs/2104.14516>

There are essential contributors to these activities that the community may wish to explicitly recognize or support, doing the following mathematical tasks:

- Traditional computational mathematics (development and maintenance of databases, implementation of algorithms). These activities have struggled to secure funding and recognition, but they directly feed into AI-powered mathematics both as training data and for augmentation of reasoning capacity.¹²
- Development of automation tools for computer proof assistants: often this entails making precise patterns of reasoning that mathematicians consider “routine,” and these become used as building blocks in AI output of mathematics in the formal-proof format. There is a two-fold value to this automation: it makes AI tools more powerful but also more human-comprehensible.¹³
- Designing and maintaining libraries of formalized proofs, which both serve as training data and provide the prerequisites to bring (auto)formalization to the frontiers of mathematical research.¹⁴
- Administering and maintaining curated (and generally high-quality) sources of mathematical knowledge (arXiv, MathSciNet, Zentralblatt, MathOverflow, Stacks Project, nLab, Wikipedia,)

There is an important question of proper attribution and credit for all of these activities.

Mathematicians will likely want assistance in developing their understanding of and ability to use these tools, and to contribute to these related activities (as listed above). Does the AMS have a role here?

- The AMS could commission survey lectures, expository articles, mini courses, or blog posts for various venues. This is a fast-moving field with a vast literature, so care must be taken to avoid duplicating effort or producing static resources which date quickly.
- Mathematical reasoning is a prestigious, though small, subfield of AI and there is substantial work being done here, often in or jointly with private industry. How do mathematicians emphasize their own priorities and standards in the development of such systems? Will mathematicians without insider connections have an opportunity to assess and verify the capabilities of a new AI system?
- Right now there seems to be limited opportunities for outside mathematicians to interact with AI developers. Is there a way to incentivize tech companies or computer scientists to provide support for mathematicians who want to use AI in their research?

It seems possible that the availability of AI-powered computer proof assistants could change conventions surrounding the production of and dissemination of mathematical proof. This raises a number of important questions.

- To what extent are computer proof assistants to be trusted? To a large extent, we assume the “kernels” (the small core correctness-checking engines) to be bug-free based on community experience of their plausibility rather than direct inspection.

¹² For instance <https://oeis.org/> or <https://simonscollab.icerm.brown.edu/data/>

¹³ For instance https://leanprover-community.github.io/mathlib_docs/tactics.html

¹⁴ See for example <https://leanprover-community.github.io/mathlib-overview.html> or <https://unimath.github.io/agda-unimath/>

- To what extent are human-generated computer formalizations to be trusted? What standards are used to verify that the definitions function as intended?¹⁵
- How do we ensure a healthy ecosystem of computer proof assistants and libraries of formalized mathematics?
- Computer proof assistants are a tool that foster large scale collaborations. Mathematicians have not traditionally had to grapple with the problem of credit-allocation in large collaborations the way that other scientific communities have.
- It is hard enough to allocate credit to new formalizations of new mathematical material, but even less visible is the additional work of integrating these contributions into a library and keeping it interoperable with the other contributions, through changes in the library's idioms and abstractions.
- By what standards do we judge an AI-generated formal proof to be correct? There is a nightmare scenario of such systems operating as oracles only: producing million-line (claimed) proofs of important theorems which give no insight into the mathematical ideas involved. Can we instead develop AI-generating-formal-proof-tools which produce proofs which make transparent the insights involved?

How do we maintain mathematics as an open and collaborative endeavor, in the face of AI tools which can absorb, and then reproduce without credit, any idea mentioned publicly? The current convention is that we cite articles (and conversations, etc) for ideas, as well as for theorems we rely on literally. When our adaptation of an idea is mediated through AI output, we may never learn its original author.

¹⁵ <https://leanprover-community.github.io/blog/posts/lte-examples/>

Artificial Intelligence: Challenges and Opportunities in Postsecondary Mathematics Education

Version of February 3 2024, prepared by Malcolm Adams, Christine Berkesch, Bryna Kra, Terrence Blackman, Tyler Kloefkorn, Akshay Venkatesh.

The introduction and widespread adoption of generative AI tools pose new challenges and present new opportunities in various fields, including Mathematics Education. This paper reflects on these opportunities and challenges through the lens of the Postsecondary Mathematics classroom and curricular development and urges the Mathematics Community to be prepared for the implications and embrace generative AI tools in postsecondary mathematics education.

Classroom Challenges

Ethical Uses by Students

Since the unveiling of generative large language models, perhaps the most broadly discussed concern in the classroom setting is cheating. This issue affects all academic disciplines to varying degrees. Some institutions have already issued broad guidelines for setting classroom standards on the use of AI (see references 1,2,3). Mostly, these guidelines repeat the common practices for the ethical use of any reference material and apply to mathematics as much as any other discipline. For several decades now, mathematics instructors have learned to set clear classroom standards on using technology tools for homework and exams. Until now, these measures have mostly been needed at the introductory level, where a significant portion of learning goals are numerical or symbolic computation. However, the new AI tools threaten to broaden the courses for which guidance is necessary. At this point, AI tools do not seem to be adept at providing correct mathematical proofs, even at the introductory level. Still, it is conceivable, and likely, that this will be an issue in the near future (see reference 5). Setting clear guidelines on using AI on homework and exams in "proof-based" courses at this early time will help establish norms that will be useful as these tools improve. At a minimum, guidelines should expect attribution when AI is used to assist in solving a problem, along with the expectation that the student is responsible for checking the accuracy of the AI-assisted work.

Ethical Uses by Instructors

As students should be taught and required to give proper attribution for the use of AI in their work, so should faculty learn and use best practices in attribution for the use of AI in their own public-facing material, both in research and teaching.

Furthermore, generative artificial intelligence (GAI) models raise questions about students' right to privacy. (See reference 6 for a broader discussion of this issue.) Generally, it should be assumed that work entered into the cloud of searchable material may be used for training material in these models. Uploading a student's work to a website (perhaps to check for plagiarism) could make that work available to a public platform. Faculty who plan to use such tools should clearly inform their students in the course syllabus.

Finally, as faculty begin to develop assignments and exercises requiring the use of GAI models, they should pay attention to questions of accessibility and equity, as they would with all course materials.

Other Concerns

The present pervasiveness of technology in our classrooms and the incipient addition of AI models to this presence raise new concerns for our students. Perhaps the most important of these is the possibility of student isolation from human interaction. More and more, students, faculty, and administrators are finding it convenient and comfortable to replace the standard classroom experience with online learning. Unfortunately, the resulting lack of human interaction can lead to depression and social anxiety (see reference 7). Although working with technology and online materials can provide accessibility, faculty must be attuned to the possible hazards that can arise.

A similar concern is that overuse of these tools might make students too reliant on technology. Students must be reminded that although these tools may be valuable for exploring a mathematical concept, they are no substitute for understanding. More than ever, students will need to learn to be responsible for checking their own understanding of a concept.

Classroom Opportunities

While it is advisable to proceed cautiously, generative AI provides many opportunities in the classroom. In the past few decades, many mathematicians have found great success in adopting the use of technology such as symbolic manipulation and computer visualization to give a richer context to difficult mathematical concepts, especially at the introductory level. Generative AI promises to bring a new set of computational tools to mathematics education.

These tools can range from developing worksheets, homework, and assessment tools for traditional mathematics tasks to introducing new learning opportunities based on direct student interaction with generative AI tools. We strongly encourage the mathematics community to explore these opportunities and to develop forums for sharing insights and materials. The AMS may have a role to play in supporting this process by maintaining a list of resources for mathematicians.

The fact that the presently available generative AI models are not currently adept at mathematical reasoning can provide opportunities for students to practice critical reading and mathematical reasoning skills. A student can be asked to prompt ChatGPT to provide a proof and then to critique this proof. Is it correct? Are there “skipped steps”? If incorrect, how can it be corrected? A variation on this is to ask the student to explore and critique a general mathematical topic using ChatGPT. (Reference 8 describes the experience of a historian using such a teaching method.) These types of problems can bring a research aspect into the undergraduate curriculum that can be difficult to incorporate in a traditional classroom, teaching students how to take responsibility for their own learning.

Finally, the depth of ethical issues that are becoming evident in the widespread use of AI provides a unique opportunity to discuss these issues in the mathematics classroom. Students can learn that developing sophisticated mathematical tools can have societal effects, good or bad, and be aware of the complexities surrounding equitable, ethical use of these tools.

Curriculum development

As the utility of mathematics applications has taken hold across many disciplines beyond physics and engineering, there has been much discussion of adjusting the standard STEM pathway in undergraduate programs. The emergence of AI underscores the necessity of continuing this discussion.

Concepts from calculus, such as optimization, approximation, and gradient flow, are certainly fundamental to understanding the inner workings of modern machine learning. However, many other mathematical fields, including linear algebra, numerical analysis, combinatorics, and probability, also play a crucial role. The mathematics community is encouraged to continue developing innovative course materials at the introductory level to deliver the necessary tools to students interested in modern applications, including AI. Again the AMS may have a role to play here by creating forums for sharing such materials.

In the future, GAI may create new career tracks for mathematics majors, requiring different technical competencies. Ideally, course offerings will adapt to serve these changing needs.

Similarly, understanding the deeper theoretical issues that abound in GAI and large language models will require researchers with a strong foundation in advanced mathematics.

Departments should consider developing courses, pathways, and programs at the graduate level that prepare students for careers in research and development in both industry and academia.

The abilities of AI tools to solve routine college-level mathematics problems is already significant, and is progressing rapidly. Students may benefit by learning how AI can be used as a tool for the subject matter and clarify current technology's limitations. Learning goals for courses may evolve accordingly. These principles apply equally at the graduate level; all graduate students should be exposed to modern AI as part of their training, even in pure disciplines.

References

1. Cornell University Committee report on Generative Artificial Intelligence for Education and Pedagogy – Appendix E specifically addresses Mathematics and physical sciences. <https://teaching.cornell.edu/generative-artificial-intelligence/cu-committee-report-generative-artificial-intelligence-education>
2. Harvard University Office of the Provost Guidelines for Using ChatGPT and other Generative AI tools at Harvard: <https://provost.harvard.edu/guidelines-using-chatgpt-and-other-generative-ai-tools-harvard#:~:text=The%20University%20supports%20responsible%20experimentation,%20and%20academic%20integrity>
3. University of Georgia ChatGPT guidance for instructors: <https://ctl.uga.edu/resources/documents/ChatGPT-Guidance-for-Instructorsc.pdf>
4. University of Maine, Learn With AI: <https://umaine.edu/learnwithai/>
5. Aaronson and Davies, "[Testing GPT-4 with Wolfram Alpha and Code Interpreter plug-ins on math and science problems.](#)
6. "[Generative artificial intelligence and data privacy: a primer](#)", prepared by the Congressional Research Service.
7. "[Association between College Course Delivery model and rates of psychological distress during the COVID-19 pandemic](#)", *JAMA Network Open*, 2022.
8. Jonathan Jones: "[Students critique a ChatGPT essay](#)".

Artificial Intelligence: Publishing in Mathematics

Version of January 30th 2024, written by Robert Harington and Joe Silverman.

Below we discuss how AI may influence publishing scholarly mathematical articles, in books and journals. We take a look at implications for peer review, research integrity, the influence of AI on the role of copyright, especially in an open access setting, as well as the possible use of AI in publishing workflows. We also take a preliminary look at how AI may affect publication of data and code.

The power of generative AI is rapidly increasing, at speeds that are hard to estimate. AI holds both potential and risk for scholarly publishing. In mathematics, there are many questions and issues to consider, some of which are listed here:

Integrity of the Scholarly Record

As LLM models grow, they incorporate data -- what we are currently calling training data. This data may include published concepts, proofs and results. However, this assimilation of content hoovers up the good and the bad, the correct and incorrect, the published and retracted. There is no taking back data from generative AIs. What will this mean for integrity of the scholarly record? Will lecture notes include scraped, unpublished content generated from AI with no indication of its origin? This is already happening for mathematical software (see this excellent article in [SIAM News December 2022 by Tim Davis and Siva Rajamanickam](#)). Will AI generate false content based on inaccurate input? To what extent will AI generated output feeding back into AI training data affect LLM models? The training data itself is, of course, an issue.

Copyright

Mathematicians write journal articles and books. While the author often signs a copyright transfer to the publisher, in many cases, especially for a book, or book chapter, the author may retain copyright.

In a world of open access, copyright is still a force, a legal reality that sits with the authors, extending licenses to publish attached for any form of reuse, provided there is attribution to the author (CC BY). Given that an LLM assimilates content from a wide range of sources such as lecture notes, books and journal articles, not distinguishing content through authorship, how will AI engines attribute to authors effectively, or at all? Some publishers are restricting, to the extent that they can, their content from being used as LLM training data. Other publishers are looking to legal remedies to resolve what they see as abuse of their copyrighted content by emerging AI models. Will publishers restrict their content further and sue if this right is breached? It is already happening. Will copyright law need to change? It seems likely that this will be an issue soon (within the next 1-2 years) for expository writing (e.g. lecture notes, surveys), less soon for journal articles. Little tricks (e.g. a particular streamlining of an argument, counterexample, or efficient sequence of exposition) are the most vulnerable to being reproduced in this way. The reading audience for research articles is small, and reviewers will recognize such a trick as "Smith's trick". The reading audience for expository material is wider and less expert, and might not include anyone who recognizes the reproduction of "Smith's trick".

Peer Review

Peer review seems to be at the heart of the matter. On the one hand, it is increasingly difficult to find reviewers capable and willing to do high quality review – in math a proof may extend to 100 pages. On the other hand, we know that quality, unbiased peer review is essential. AI may be able to help in mathematics, perhaps through automated proof checking. Even so, it may be that human curation becomes ever more important, in partnership with AI.

Publishing Workflows

On the positive side, while the AMS is implementing guidelines and best practices for using AI in writing manuscripts (<https://www.ams.org/publications/journals/policies/UseofArtificialIntelligence>), there a real potential benefit for publishers and authors. The [American Chemical Society](#) has partnered with Writefull (<https://www.digital-science.com/news/writefull-ai-language-services-integrated-into-ac-publications/>) to integrate AI-based language services into the ACS publications workflow, leading to significantly enhanced efficiency in the production workflow. An interesting article in ACS Nano ([Best Practices for Using AI When Writing Scientific Manuscripts ACS Nano 2023, 17, 4091-4093](#)) lays out strengths and weaknesses of generative AI for authoring. Will AI be useful and acceptable in cleaning up language for an author whose first language is not English?

MathSciNet

AI may provide product development opportunities for MathSciNet, and AMS Publishing is investigating possibilities. There is also real value in human curation aspects of MathSciNet, so an issue for consideration is how AI tools may enhance the utility of MathSciNet.

To what extent can an AI engine take the LaTeX source and/or PDF file of a mathematics article and generate an acceptable review such that those published on MathSciNet? Or at least a first approximation of an acceptable review?

On the positive side, with funding from the University of Michigan, MathSciNet is working on developing machine learning methodologies for programmatic categorization of research articles in mathematics, based on the Mathematics Subject Classification (MSC).

Data and Code

For many mathematicians, data is important, not so much as experimental data, but in the form of algorithms and code. Should the AMS develop guidelines for authors who plan to submit papers that have some sort of computerized component? (formalized proofs, calculations in a bespoke software package.

Resources:

General articles:

<https://scholarlykitchen.sspnet.org/2023/11/14/approaching-artificial-intelligence-and-open-research-in-sync-opportunities-and-challenges/>

<https://scholarlykitchen.sspnet.org/2023/10/04/gpt-large-language-models-and-rough-of-disillusionment/>

<https://scholarlykitchen.sspnet.org/2023/08/23/ai-beyond-the-publishing-workflow/>

<https://www.niso.org/niso-io/2023/10/lunchtime-provocation-andrew-pace>

<https://www.thomsonreuters.com/en-us/posts/legal/ai-enabled-anti-black-bias/>

<https://scholarlykitchen.sspnet.org/2023/06/06/the-supreme-court-case-of-andy-warhol-foundation-v-goldsmith-what-if-anything-does-it-mean-to-artificial-intelligence/>

<https://scholarlykitchen.sspnet.org/2023/03/07/some-thoughts-on-five-pending-ai-litigations-avoiding-squirrels-and-other-ai-distractions/>

<https://newsroom.gettyimages.com/en/getty-images/getty-images-statement>

<https://www.theguardian.com/science/2023/jan/26/science-journals-ban-listing-of-chatgpt-as-co-author-on-papers>

<https://blogs.lse.ac.uk/impactofsocialsciences/2023/01/16/can-artificial-intelligence-assess-the-quality-of-academic-journal-articles-in-the-next-ref/>

Workflow tools:

<https://pubs.acs.org/doi/10.1021/acsnano.3c01544>,

<https://journals.aps.org/authors/ai-based-writing-tools#:~:text=Authors%20and%20Referees%20may%20use,the%20contents%20of%20their%200reports>.

<https://scholarlykitchen.sspnet.org/>

Harnessing the Power of Artificial Intelligence with Mathematics¹

Gunnar Carlsson, Stanford University, and Karen Saxe, American Mathematical Society²

January 23, 2024

Overview

Artificial Intelligence (AI) is developing at an extraordinary pace. Rapid development has been going on for a long time, but the last year has seen a distinct acceleration, particularly in the area of large language models. Given the transformative power of AI and potential impact on all sectors of the U.S. economy, it is critical that we (a) harness the power of AI fully and (b) ensure that AI is used responsibly.

Government, through its investments, should encourage increased research activity in all aspects of AI. Mathematics is very well positioned to contribute to AI, and should be an important component of AI initiatives. It is also the case that AI can contribute to the mathematics research effort.

How Mathematics can contribute to AI

One of the biggest hurdles facing AI is the enablement of productive human interaction with AI technology. The most powerful AI technologies, especially neural networks, are often regarded as “black boxes”, in that they can obtain usable outputs but do so in a way which is incomprehensible to humans. This is a serious problem, because it means that we are unable to systematically and predictably design and improve the technology to perform as we would like. It also means that we cannot guarantee that the technology is not behaving in a way contrary to human value systems, in that it might introduce bias and inequities.

Example: As an illustration of how this lack of understanding creates problems, Tesla Autopilot constructed AI algorithms that were designed to recognize the digits in speed limit signs. Their algorithms were such that small changes in the number “35” on a speed limit (extending the middle “prong” on the digit “3” induced the algorithms to recognize “35” as “85”, even though a human would easily recognize the difference. This kind of error could be catastrophic. Understanding when an AI trained in one context can reliably function in a new context is a fundamentally mathematical problem. This requires not only that we make an AI work but that we understand something about *how* it works.

Example: Amazon found that it had to scrap an AI-based recruiting tool because they found that it had introduced bias against women. If they had sufficient understanding of the internal workings of the tool, it might very well have been possible that adjustments could have been made so as to remove the bias.

Throughout history, mathematics has provided methods of improving “brute force” solutions, enabling technology to work smarter instead of harder. At the moment, many challenges in AI are addressed by deploying huge amounts of computational resources at a problem, trying many different approaches until an effective one is found. Mathematics enables optimal data architectures, more efficient algorithms, improved performance and reliability, and explainable decisions. In short, deeper mathematical understanding will enable AI development of the future to make the most effective choice first instead of eventually by chance.

How AI can contribute to Mathematics

New fundamental results in mathematics have been discovered with the assistance of machine learning. This subfield of AI is the process by which a machine learns from examples and thereby develops its

¹ This AMS white paper will be used to inform the “one-pager” on AI for Congress, found at <https://www.ams.org/government/dc-prepare>

² Written in consultation with Brendan Hassett, Brown University and ICERM Director; and Jerry McNerney, Pillsbury Winthrop Shaw Pittman LLP and retired from US Congress.

intelligence, demonstrating that AI can help mathematicians discover new conjectures and theorems, and more generally, that machines and humans can be genuine collaborators. It's becoming clear that AI, rather than replacing human scientific ingenuity, has the potential to enhance it in ways we are only beginning to understand.

For example, AI has contributed to solving important mathematical problems of imaging, such as denoising, edge detection, and inpainting. AI-driven systems already help mathematicians analyze the behavior of partial differential equations, which can model physical processes from ocean currents to nuclear explosions. In addition to discoveries with immediate real-world applications, AI has been used successfully to solve theoretical mathematical problems. As history has shown, this kind of development can be tremendously impactful in science and engineering, not just now but 10 or 100 years from now.

How to enable mathematicians to contribute

There are a number of specific measures that would simplify and accelerate mathematician's participation in AI.

- **Increased emphasis on experimental mathematics:** Much of mathematics has been driven by initial observation of empirical results, which are then formulated into theorems and frameworks for studying a given problem. Physics and games of chance are obvious examples, but other areas of mathematics also proceed by first performing computations which suggest the direction of theories. This initial experimentation is particularly important in working on AI, and experimentation guided by mathematical insight is potentially very effective.
- **Engage mathematicians with real world data and computational issues:** It is important that mathematicians engage directly with the data and the computations. Rather than dealing only with AI practitioners' ideas about how to build mathematical models and formalisms to solve problems in AI, we can take steps to understand directly the actual sources and computational methodologies and use the insights gained to formulate models. This will greatly increase the effectiveness of the contributions of mathematicians, and will enable them to see the problems in the most realistic light possible.
- **Involve mathematicians in the formulation stage of investigations:** Mathematicians prefer to deal with problems that are well formulated, so that they can apply their techniques to them. For many problems, however, the formulation step is the most important one. Given engagement with the actual empirical (data or computational) information, mathematicians are very well suited to the formulation of mathematical problems that will be of use for solution of a given problem in the AI application domain. Dealing exclusively with the formulation produced by those working directly with AI is likely an inefficient way to proceed.
- **Involve mathematicians in efforts to ensure responsible AI:** Mathematicians can inform the development of algorithms that permit the inclusion of ethical constraints, rather than trying to account for and mitigate ethical problems—including algorithmic bias—after the fact.
- **New funding sources:** The National Science Foundation has been the traditional source of much of the funding for mathematical research. The NSF has a number of excellent initiatives directed at the involvement of the scientific community in AI. Given the interest in AI demonstrated by many different agencies in AI with different foci, we should explore the possibilities for other funding sources as well.
- **Popularizing AI research within mathematics:** We should increase the activities that expose mathematicians to the issues and problems arising in AI. This could mean written documents or videos, but it could also mean activities such as workshops at the institutes. Much of this is already happening to a degree, and we believe it should be encouraged to accelerate.

Update on the Review of the Bylaws of the American Mathematical Society

In 2023 an external review by legal counsel yielded a marked-up version of the bylaws with added commentary. The charge to legal counsel was to assist in bringing the bylaws into compliance with ambient law and to make additional suggestions for possible improvement. This was reported previously. The annotations and comments are such that the Task Force to review the bylaws decided to attend to these after a fresh look at the bylaws in terms of what they stipulate. This also responds to discussions across governance about various aspects of our current governance.

The Task Force makes no recommendations at this time. Instead, this report serves to convey an indication of the significant changes being considered at present. Comments on these will be helpful for the continuing work.

Deletions and edits

Note on deletions: When Council makes recommendations for bylaws deletions, it can stipulate that what is being deleted remains current policy -- but becomes subject to change by Council rather than by the full membership.

The Task Force doubts that the bylaws need to provide as much detail about publications as they currently do. In this respect the current form is likely a historical artefact rather than a necessity (accretion of bylaws language from the infancy of the AMS). Some details also impinge on the composition of the Council and have made pertinent considerations more difficult.

1) Meetings and publications are both central to the AMS, but meetings work just fine without the bylaws spelling out what we do.

2) There is perennial confusion about what is what. There are journals which do not appear in the bylaws at all and are not primary. There are journals which are in the bylaws and singled out for Council representation, journals in the bylaws which are not, journals which are not mentioned in the bylaws. The Task Force leans towards Council representation of the publishing side which specifies a number in the bylaws (between 6 and 8) and details in Council policy. This discussion needs to be had in this group and among governance, notably on Council itself.

Suggested bylaws deletions/changes (under discussion, not ready for adoption):

[**Note**] *Article I Officers Section 1.* A pervasive minor oddity is that turns of phrase such as "qualifications for election and service of Officers" sound as if officers are elected. Some aren't.

{**Delete**} *Article I Officers Section 2.* It shall be a duty of the president to deliver an address before the Society at the close of the term of office or within one year thereafter.

[There is no doubt that this tradition will continue.]

[**Proposed edit**] *Article II Board of Trustees Section 2.* The function of the Board of Trustees shall be ... and in general, to conduct all business affairs of the Society.

In recent years, this has been somewhat broadly construed to include the BT having the authority

to weigh in on, and make decisions about, matters that could affect the reputation of the AMS. It's reasonable to consider such matters "business affairs", or we could consider rewording this clause slightly to make it clearer. This has led to confusion in the past.

[Delete] *Article III Committees*

This article can be eliminated and any needed parts moved to *Article XI Publications*. It is a vestige from far bygone days.

Article IV Council Section 1.

This is a big issue we need to take up shortly.

[Proposed edit] *Article IV Council Section 4.* The method for settling matters before the Council at any meeting shall be by majority vote of the members present.

Currently "present" include "virtually present", but that was not foreseen when the word was chosen. Instead of weighing down the bylaws with details on how meetings are held, replace by "participating."

[Proposed edit] *Article IV Council Section 4.* All members of the Council shall be voting members. Each member shall have one vote.

Add: "(even if they are a member of the Council in several capacities).", then omit the parenthetical piece of the following later stipulation or the stipulation entirely:

In a roll call vote, each Council member shall vote only once (although possibly a member of the Council in several capacities).

[Proposed edits] *Article IV Council Section 8.* The Council shall also have power to speak in the name of the Society

An important piece of the external legal advice is that the Board must be the primary governance body, with the Council a "subsidiary body." Accordingly, BT involvement is important. Statements in the name of the Society are a prime example of something where absence of BT oversight is an anomaly with respect to external affairs. Statements in the name of the society should have to pass through the Board (in a manner to be determined).

[Deletion] *Article IV Council Section 8.* The Council may also refer the matter to a referendum of the entire membership of the Society and shall make such reference if a referendum is requested, prior to final action by the Council, by two hundred or more members. The taking of a referendum shall act as a stay upon Council action until the votes have been canvassed, and thereafter no action may be taken by the Council except in accordance with a plurality of the votes cast in the referendum.

[Proposed edits] *Article VI Executive Director Section 2.* The Executive Director shall be appointed by the Board of Trustees with the consent of the Council.

Omit "consent of the Council" in light of the supremacy of BT and because it is practically difficult.

[Also finesse "Executive Director" or change to current job title.]

[Proposed edit] *Article VI Executive Director Section 3.* The Executive Director shall be responsible to and shall consult regularly with a liaison committee consisting of the president as chair, the secretary, the treasurer, and the chair of the Board of Trustees.

Replace "chair of the Board of Trustees" by "presiding officer of the Board of Trustees" because that is the terminology used in "The Board of Trustees shall designate its own presiding officer".

[Proposed edit] *Article VII Election of Officers and Terms of Office Section 1.* The term of office shall be one year in the case of the president elect and the immediate past president; two years in the case of the president, the secretary, the associate secretaries, the treasurer, and the associate treasurer...

Suggestion that the secretaries and treasurers serve terms of 3 years. Change header to "Election and appointment..."

[Proposed edit] *Article VII Election of Officers and Terms of Office Section 4.* Any member of the Council ... shall be eligible for election to the Executive Committee.

Change to "vice president or member at large of the Council"

[Proposed edit] *Article VII Election of Officers and Terms of Office Section 2.* The secretary, the associate secretaries, the treasurer, and the associate treasurer shall be appointed by the Council in a manner designated by the Council.

Reconsider primacy of Council in the stated process and alignment with practice.

[Proposed edits] *Article VII Election of Officers and Terms of Office Section 5.* The president and vice presidents shall not be eligible for immediate re-election to their respective offices. A member at large or an ex officio member of the Council shall not be eligible for immediate election (or re-election) as a member at large of the Council.

Possibly change the last sentence to allow Council members at large a second term (with term limits?). Counterpoint: It is good to get more people involved.

Article VII Election of Officers and Terms of Office Sections 6-8: Possibly streamline.

[Proposed edits] *Article VII, Section 7.* Maybe BT should always be involved in filling unexpected vacancies; there are oddities with the present stipulations.

[Careful rewriting from scratch might be an improvement.]

[Proposed edits] *Article VII, Section 9.* Change "any officer" to "any officer, trustee, or member at large of the Council". Language in Article I and elsewhere seems to make a clear distinction

among these three categories.

[Note that not all officers are elected. So a clean-up is in order.]

[Proposed addition] *Article VII Election of Officers and Terms of Office*

There does not appear to be a procedure for removing an elected (or appointed) person from office.

[Merge] *Article VIII Members and Their Election* and *Article IX Dues and Privileges of Members* into a single article.

[Deletion] *Article X Meetings Section 1*. Not clear whether this is needed.

[Deletion would have ripple effects.]

[Delete] *Article X Meetings Section 2*. There shall be a business meeting of the Society only at the annual meeting

This can be omitted with a little care or perhaps worked into part of the public part of the council meeting. Apparently not legally required. (The last one had literally 0 in attendance, 2023 had some 5. Apparently a small number of decades ago, these did conduct business or at least discussions which led to Council agenda items. The alternative to deleting would be to actively reactivate them if we know to what purpose.) Note *Article XIII Amendments*.

[Proposed edit] *Article X Meetings Section 5*. Meetings of the Board of Trustees may be called by the president, the treasurer, or the secretary of the Society...

Add "its presiding officer."

[Delete] *Article X Meetings Section 6*

This is probably best omitted. It does not reflect current practice nor rises to the level of bylaws.

[Proposed edits] *Article XI Publications Section 1*. This does not seem to represent our intentions, and the matter of the Notices board is an anomaly. A separate committee is considering this.

Article XIII Amendments Delete reference to business meeting as follows:

These bylaws may be amended or suspended on recommendation of the Council and with the approval of the membership of the Society, the approval consisting of two-thirds of the members voting in a mail ballot in which at least ten percent of the members vote, provided notice of the proposed action and of its general nature accompanies the ballot in full.

[By default this only needs a simple majority in Council to go to membership; a supermajority should probably be required.]

**The Report from the AWM-AMS Emmy Noether Lecture Selection Committee Members
(Efstratia Kalfagianni, Rachel Kuske, Marta Lewicka and Bozenna Pasik-Duncan (Chair))**

October 13, 2023

The number of nominations:

There are a total of 4 nominations but only **3 nominations are completed** and only these 3 completed nominations were reviewed and evaluated by the committee members.

Access to the nominations and the Committee Meeting via Zoom

The committee received the access to the nominations on September 28.
The Committee met via Zoom on Monday, October 9, 2023 and selected the Winner unanimously.
Additionally the Committee prepared citation (s), see 2. and Remark within it.

Our recommendation include:

1. A recommended **2025 AWM – AMS Emmy Noether Lecture Winner** is:

Neena Gupta, Indian Statistical Institute, Kolkata, India

2. The following citation highlighting the accomplishments of the winner is recommended:

“ For outstanding contributions to affine algebraic geometry and commutative algebra, and in particular for her solution of the long standing open “Zariski Cancellation Problem” for affine spaces.

For making masterly contributions in the area of Affine Fibrations, including a structure theorem for locally Laurent polynomial algebras, a beautiful analogue of the theorem for locally polynomial algebras due to Bass-Connell-Wright and Suslin.

In another landmark paper, with Bhatwadekar-Lokhande, Neena presents an infinite family of counterexamples to a conjecture of M. Miyanishi, a topic closely related to Hilbert’s Fourteenth Problem.

Gupta was an invited speaker at the ICM 2022 (sections of Algebra and Algebraic and Complex Geometry), the youngest mathematician awarded “India’s highest scientific honour, the Shanti Swarup Bhatnagar Prize” and a recipient of the Ramanujan Prize.

“[Gupta’s] biography is being published in a book Vigyan Vidushi (Eminent women in Indian Science) on the occasion of 75 years of Indian independence.” On March 8, 2022, she was awarded the “Nari Shakti Puraskar (award for woman empowerment)” by the President of India.”

Remark: In the need of a longer citation, see the attachment or in the need of a very short citation, the Committee recommends using the first paragraph from the attached long citation.

3. At least one recommended runner-up along with a short justification for this recommendation

The Committee had an extensive discussion on the recommendation of the runner up and didn't reach consensus at the Committee meeting of October 9.

4. A confirmation that your committee members have met the implicit bias confirmation requirement.

All four members of the Committee confirmed being free from COI and all four members confirmed that they had the Implicit Bias (IB) training that included the IB tests at their institutions.

Please let me know if you have any questions.

Thank you.

With my warmest wishes,
Bozenna
on behalf of the Selection Committee Members

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American Mathematical Society Code of Conduct for Conferences, Meetings, and Other Events

The following Code of Conduct (Code) applies to all participants at all American Mathematical Society (AMS) conferences, meetings, events, and other organized activities (collectively "Events"), regardless of location or the capacity in which a person is attending, be it as an organizer, delegate, speaker, sponsor, exhibitor, or in any other capacity (collectively "Participants"). Participants are expected to uphold the principles set out in the Code at all times during the event.

A. AMS Welcoming Environment and Anti-Harassment Policies

The AMS strives to ensure that Participants at its Events enjoy a welcoming environment. At all of its Events, the AMS seeks to foster an atmosphere that encourages the free expression and exchange of ideas in a professional and educational manner. The AMS supports equality of opportunity and treatment for all Participants, regardless of gender, gender identity or expression, race, color, national or ethnic origin, religion or religious belief, political beliefs, age, marital status, sexual orientation, disabilities, veteran status, immigration status, or any other personal characteristic protected by law. The AMS views harassment and discrimination by any Participant to be misconduct that undermines the integrity of AMS Events and mission.

The AMS Welcoming Environment Policy and the AMS Anti-Harassment Policy may be found at

<https://www.ams.org/about-us/governance/policy-statements/welcoming-environment-policy>

<https://www.ams.org/about-us/governance/policy-statements/anti-harassment-policy>

All Participants at AMS Events are required to abide by these policies. Failure to do so may result in removal from an Event.

B. Policy on Disruptions

The American Mathematical Society (AMS) is committed to upholding the professional and educational purposes of its Events. The AMS affirms the right of registered attendees of AMS events to participate fully in all scheduled program activities and aims to provide a safe and welcoming environment for everyone present. Expressions of dissent or other matters must not disrupt or inhibit Events, nor may they prevent full participation of registered attendees or pose a threat to the personal safety of Participants. If the AMS determines that any action violates this policy, the AMS may remove those involved in the action from any Event, revoke the registration of individuals involved without refund, and take further appropriate steps as deemed necessary.

C. Policy on Weapons

Participants are prohibited from bringing weapons of any type to AMS Events to the fullest extent permitted by law. Weapons include firearms, knives, explosive devices, and any other object determined to be a weapon in the sole discretion of the AMS.

D. Determination of Failure to Abide by AMS Policy and Potential Further Consequences

The AMS shall have full and sole authority to determine if an individual or group of individuals is in violation of any of the provisions detailed in this Code of Conduct policy, the ancillary Welcoming Environment and Anti-Harassment documents, Events registration documents or any other policy of AMS applicable to Event Participants. The AMS shall have full authority to remove a Participant from an Event at any time. The AMS will determine at its sole discretion whether to provide a pro rata refund of registration fees or no refund at all, depending upon the relevant facts and circumstances. Further, at the sole discretion of the AMS, violation of this Code of Conduct may result in an individual being banned or suspended from participation in future AMS Events and/or in loss or suspension of AMS membership and membership privileges.