



2008 American Mathematical Society Election

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2008 AMS Elections

Special Section

List of Candidates–2008 Election

Vice President

(one to be elected)

Wen-Ching Winnie Li
Frank Morgan

Board of Trustees

(one to be elected)

David R. Morrison
Ronald J. Stern

Member at Large of the Council

(five to be elected)

Scott Jeremy Baldrige
Aaron Bertram
Hector Daniel Cenicerros
David Manderscheid
William A. Massey
Daniel K. Nakano
Panagiotis E. Souganidis
Michelle L. Wachs
David Wright
Hornng-Tzer Yau

Nominating Committee

(three to be elected)

Irene Fonseca
Sheldon H. Katz
Chawne M. Kimber
David Kinderlehrer
Ellen E. Kirkman
Peter B. Shalen

Editorial Boards Committee

(two to be elected)

David C. Dobson
Michael T. Lacey
Michael F. Singer
Jack Xin

Ballots

AMS members will receive email with instructions for voting online by August 18, or a paper ballot by September 20. If you do not receive this information by that date, please contact the AMS (preferably before October 1) to request a ballot. Send email to ballot@ams.org or call the AMS at 800-321-4267 (within the U.S. or Canada) or 401-455-4000 (worldwide) and ask to speak with Member Services. The deadline for receipt of ballots is November 7, 2008.

Write-in Votes

It is suggested that names for write-in votes be given in exactly the form that the name occurs in the *Combined Membership List* (www.ams.org/cm1). Otherwise the identity of the individual for whom the vote is cast may be in doubt and the vote may not be properly credited.

Replacement Ballots

For a paper ballot, the following replacement procedure has been devised: A member who has not received a ballot by September 20, 2008, or who has received a ballot but has accidentally spoiled it, may write to ballot@ams.org or Secretary of the AMS, 201 Charles Street, Providence, RI 02904-2294, USA, asking for a second ballot. The request should include the individual's member code and the address to which the replacement ballot should be sent. Immediately upon receipt of the request in the Providence office, a second ballot, which will be indistinguishable from the original, will be sent by first class or airmail. Although a second ballot will be supplied on request and will be sent

by first class or airmail, the deadline for receipt of ballots cannot be extended to accommodate these special cases.

Biographies of Candidates

The next several pages contain biographical information about all candidates. All candidates were given the opportunity to provide a statement of not more than 200 words to appear at the end of their biographical information.

Description of Offices

The **vice president** and the **members at large of the AMS Council** serve for three years on the Council. That body determines all scientific policy of the Society, creates and oversees numerous committees, appoints the treasurers and members of the Secretariat, makes nominations of candidates for future elections, and determines the chief editors of several key editorial boards. Typically, each of these new members of the Council also will serve on one of the Society's five policy committees.

The **Board of Trustees**, of whom you will be electing one member for a five-year term, has complete fiduciary responsibility for the Society. Among other activities, the trustees determine the annual budget of the Society, prices of journals, salaries of employees, dues (in cooperation with the Council), registration fees for meetings, and investment policy for the Society's reserves. The person you select will serve as chair of the Board of Trustees during the fourth year of the term.

The candidates for vice president, members at large, and trustee were suggested to the Council either by the

Nominating Committee or by petition from members. While the Council has the final nominating responsibility, the groundwork is laid by the **Nominating Committee**. The candidates for election to the Nominating Committee were nominated by the current president, James G. Glimm. The three elected will serve three-year terms. The main work of the Nominating Committee takes place during the annual meeting of the Society, during which it has four sessions of face-to-face meetings, each lasting about three hours. The Committee then reports its suggestions to the spring Council, which makes the final nominations.

The **Editorial Boards Committee** is responsible for the staffing of the editorial boards of the Society. Members are elected for three-year terms from a list of candidates named by the president. The Editorial Boards Committee makes recommendations for almost all editorial boards of the Society. Managing editors of *Journal of the AMS*, *Mathematics of Computation*, *Proceedings of the AMS*, and *Transactions of the AMS*; and Chairs of the *Colloquium*, *Mathematical Surveys and Monographs*, and *Mathematical Reviews* editorial committees are officially appointed by the Council upon recommendation by the Editorial Boards Committee. In virtually all other cases, the editors are appointed by the president, again upon recommendation by the Editorial Boards Committee.

Elections to the **Nominating Committee** and the **Editorial Boards Committee** are conducted by the method of approval voting. In the approval voting method, you can vote for as many or as few of the candidates as you wish. The candidates with the greatest number of the votes win the election.

A Note from AMS Secretary Robert J. Daverman

The choices you make in these elections directly affect the direction the Society takes. If the past election serves as a reliable measure, about 13 percent of you will vote in the coming election, which is comparable with voter participation in other professional organizations which allow an online voting option. This is not mentioned as encouragement for you to throw the ballot in the trash; instead, the other officers and Council members join me in urging you to take a few minutes to review the election material, fill out your ballot, and submit it. The Society belongs to its members. You can influence the policy and direction it takes by voting.

Also, let me urge you to consider other ways of participating in Society activities. The Nominating Committee, the Editorial Boards Committee, and the Committee on Committees are always interested in learning of members who are willing to serve the Society in various capacities. Names are always welcome, particularly when accompanied by a few words detailing the person's background and interests. Self-nominations are probably the most useful. Recommendations can be transmitted through an online form (www.ams.org/committee-nominate) or sent directly to the secretary (secretary@ams.org) or Office of the Secretary, American Mathematical Society, 312D Ayres Hall, University of Tennessee, Knoxville, TN 37996-1330.

PLEASE VOTE.

A Proposal for a Fellows Program of the AMS

The January 2008 Council directed that the following proposal be presented to the membership in 2008 for their vote to support or oppose the formation of an AMS Fellows Program. The Council further directed that the ballot be accompanied by this statement: "If more than 2/3 of the members voting on this issue are in favor, then the AMS will implement the program. A similar vote in 2006 gave 63.2% in favor of establishing a Fellows Program."

The Fellows program is created and updated by the Council of the AMS. The program below describes in general terms what a new Fellows program will look like. If approved, some details of the program may be changed by the AMS Council prior to implementation in order to address practical needs. Future Councils can make further changes, keeping in mind the intent of the membership in approving the initial program.

The goals of the Fellows Program are:

- To create an enlarged class of mathematicians recognized by their peers as distinguished for their contributions to the profession.
- To honor not only the extraordinary but also the excellent.
- To lift the morale of the profession by providing an honor more accessible than those currently available.
- To make mathematicians more competitive for awards, promotion, and honors when they are being compared with colleagues from other disciplines.

- To support the advancement of more mathematicians in leadership positions in their own institutions and in the broader society.

I. Program (steady-state)

A. The Fellows program of the American Mathematical Society recognizes members who have made outstanding contributions to the creation, exposition, advancement, communication, and utilization of mathematics.

B. The responsibilities of Fellows are:

- To take part in the election of new Fellows,
 - To present a "public face" of excellence in mathematics, and
 - To advise the President and/or the Council on public matters when requested.
- C. All AMS members are eligible to be elected Fellows.
- D. The target number of Fellows will be determined by the AMS Council as a percentage of the number of eligible

members.¹ The target percentage will be revisited by the Council at least once every ten years and may be increased or decreased in light of the history of the nomination and election process. The intended size of each year's class of new Fellows should be set with this target size in mind.

E. Following an election process (see below), individuals are invited to become Fellows. They may decline and they may also resign as Fellows at any time.

F. Each year all Fellows are invited to a reception at the AMS annual meeting; and the new Fellows are announced at this reception followed by a press release. New Fellows receive a certificate and their names are listed on the AMS website. The names of new Fellows are also included in the *Notices*.

G. If they are not already Fellows, the AMS President and Secretary are made Fellows when they take office.

II. Election Process

A. New Fellows are elected each year after a nomination process. Eligible voters consist of current Fellows who are also members of the Society. Both the election and the nomination process are carried out under the direction of the Secretary with help from the AMS staff. The procedures for nominating AMS Fellows will be available on the AMS website.

B. The Election Committee will consist of nine members of the AMS who are also Fellows, each serving a three-year term, and with three new members appointed each year. The AMS president, in consultation with the Executive Committee of the Council, nominates the new members of the Election Committee in November of each year. At the same time, the President nominates a continuing member of the Election Committee to serve as Chair. The President's choices are approved by Council at its January meeting.

C. The Election Committee accepts nominations for Fellows between February 1 and March 31 each year. Nominations are made by members of the AMS. A member can nominate no more than 4 nominees a year.

D. To be eligible for nomination to Fellowship, an individual must be an AMS member for the year in which he or she is nominated as well as for the prior year.

E. A nominator must supply a package with the following information on the nominee:

1. A Curriculum Vitae of no more than five pages.
2. A citation of fifty words or less explaining the person's accomplishments.
3. A statement of cause of 500 words or less explaining why the individual meets the criteria of Fellowship.
4. The signatures of the nominator and three additional AMS members who support the nomination, with at least two of these individuals current Fellows.

F. Any person who appears on the ballot and is not elected a Fellow will remain an active nominee to be

¹This proposal's recommendation to Council is 5% of eligible members. At present there are about 30,000 eligible members so the number of Fellows would be about 1,500.

considered by the Election Committee for inclusion on the ballot for a further 2 years.

G. A person can be nominated no more than 3 times in a 5-year period.

H. Each year the January Council provides a guideline for the number of nominations to appear on the ballot. The Election Committee assembles the ballot from the nominations bearing in mind this guideline, diversity of every kind, and the quality and quantity of the external nominations. The Election Committee has the discretion to make nominations itself if necessary to fulfill the general goals of the fellowship.

I. The ballot is available electronically (only) and voting is conducted throughout the month of September of each year. The Curriculum Vitae and citation for each candidate will be available to all eligible voters. Election is by plurality with the top one-half of the candidates elected. In case of a tie, more than one-half of the candidates may be elected.

J. Those nominees elected are invited by the President to become new Fellows of the AMS as of January 1 of the following year.

III. Initial Implementation

A. In the initial year of the program, all eligible AMS members who have done one or more of the following are invited to become AMS Fellows.²

1. Given an invited AMS address (including at joint meetings).
2. Been awarded an AMS research prize.³
3. Given an invited address at an International Congress of Mathematicians (ICM) or an International Congress of Industrial and Applied Mathematicians (ICIAM).⁴

B. An additional 50 Fellows are selected by a committee appointed by the President with the advice of the Executive Committee of the Council. Particular attention will be paid to selecting AMS members recognized for their contributions to education and service to the profession.

C. For the initial "seed pool" of Fellows there is no length of AMS membership required. Any person who falls into one of the three categories above, and who is an AMS member during the year in which this program is initiated will be invited to be a Fellow.

D. At least ten (10), but no more than fifty (50), new Fellows are elected each year until the total number of Fellows reaches 95% of the targeted size of the Fellowship.⁵

²The seeding process described in III.A would produce offers of Fellows status to more than 800 current AMS members. The group of invited address speakers also includes approximately 400 additional individuals who are not currently AMS members.

³These are the Birkhoff, Bôcher, Cole, Conant, Doob, Eisenbud, Fulkerson, Moore, Robbins, Satter, Steele, Veblen, Whiteman, and Weiner prizes.

⁴An invited address is one given at the invitation of the program committee.

⁵If 1,000 Fellows are named through the initial seeding, then we estimate that a steady state of 1,600 would be achieved in approximately 10–20 years under the proposed plan.

Frequently Asked Questions about the AMS Fellows Proposal

Q. How was the AMS Fellows program proposal developed?

A. Over the past decade various committees and subcommittees of the AMS have discussed the possibility of instituting an AMS Fellows Program, partly influenced by the existence of such programs in a number of other scientific societies. In 2003 an ad hoc committee on Fellows gave a report to the Council in which arguments were presented for and against the concept. Because it is hard to judge a program in the abstract, a smaller committee was appointed with the charge to formulate a specific proposal. This committee included the Council members, John Franks, Susan Friedlander (Chair) and Sheldon Katz. After months of analysis of earlier committee reports, discussions with many AMS members, comparative research into other Fellows programs, and deliberation of what kind of program might suit the AMS, the committee reported back to the Council in 2006 with a specific proposal.

The Council, after strenuous debate, voted to put the proposal on the 2006 AMS ballot. The members could vote for or against the proposal with the information that if two-thirds of the vote was in favor, the program would be implemented. The vote in 2006 was 63.2% in favor.

The proposal that is being brought to the membership in 2008 is a modified version of the 2006 proposal. It takes into account certain issues raised by members and also benefits from feedback between the AMS proposal and a proposal for SIAM Fellows that will be put on the SIAM ballot in 2008.

Q. Is excellence in research the only criterion for being a Fellow?

A. Research excellence is certainly one possible criterion, but it is not meant to be the only one. The Fellows program is also intended to recognize excellence in educational activities and other forms of excellence directly related to the goals of the AMS.

Q. What are the goals of the Fellows program?

A. The goals are:

To create an enlarged class of mathematicians recognized by their peers as distinguished for their contributions to the profession.

To honor not only the extraordinary but also the excellent.

To lift the morale of the profession by providing an honor more accessible than those currently available.

To make mathematicians more competitive for awards, promotion, and honors when they are being compared with colleagues from other disciplines.

To support the advancement of more mathematicians in leadership positions in their own institutions and in the broader society.

Q. What are arguments in favor of a Fellows program?

A. Here are some of the arguments in favor:

1. There are too few opportunities to recognize achievement in mathematics, and a Fellows program will

provide one more that will be available to a large number of people.

2. AMS Fellows and their departments may be more competitive for awards and other honors when competing with other disciplines for recognition.

3. Many other societies in other disciplines have fellows programs, and mathematicians sometimes must compete with their members for recognition.

4. Fellows may have more influence in the profession and in their own institutions.

5. Fellows may have a stronger connection with the AMS.

Q. What are arguments against a Fellows program?

A. Here are some of the arguments against:

1. The AMS has a long tradition of being welcoming and egalitarian. Having a Fellows program may not be consistent with this tradition.

2. Fellows are likely to be those people who already have been recognized in other ways.

3. Selection as a fellow of the AMS will not be especially important to people or institutions outside mathematics.

4. The process of selecting fellows will be political and may be divisive in various settings—in departments, in particular research groups, or in the Society itself.

5. Non-fellows may have a weaker connection with the AMS (and there are many more of them).

Q. Where can I find more detailed discussions?

A. Pro and con articles concerning an AMS Fellows program appeared in the AMS *Notices* in advance of the 2006 vote (Vol 53, Aug 2006, pp. 754–756, also found at <http://www.ams.org/notices/200607/fea-fellows.pdf>.)

Q. Do other societies in the mathematical sciences have Fellows programs?

A. Yes. For example, the American Statistical Association, Association for Computing Machinery, and INFORMS all have Fellows programs. The Society for Industrial and Applied Mathematics will bring a proposal for establishing a Fellows Program to its members in its 2008 ballot. If 50% of the vote is in favor, SIAM will implement a program whose details can be found at <http://Fellows.siam.org>.

Q. How does the proposed AMS program compare to the size of the programs of other societies?

A. In its steady state the proposed AMS Fellowship would be approximately 5% of the total membership (i.e., about 1,500 fellows out of about 30,000 members). In some other societies surveyed the Fellowship varies between about 5% and about 13%.

In its steady state it is expected that the number of new Fellows elected each year will be approximately 0.2% of the membership. Each year, the American Physical Society elects no more than 0.5% of all members and the American Statistical Association elects no more than 0.33% of all members.

Q. How will the AMS Fellowship be started and how will new Fellows be elected?

A. This is spelled out in detail in the proposal itself.

Q. How many Fellows will there be in the “seed pool” and how will the steady state be achieved?

A. The seed process (see the proposal) is expected to generate approximately 1,000 Fellows. During the transition process, the proposal calls for 10–50 new Fellows each year. The expectation is that the number will be at the high end of this range, and therefore that the steady state of approximately 1,500 Fellows will be reached in roughly 10 years. Assuming a Fellow lives approximately 30 years after election on average, approximately 50 new Fellows will be elected each year to maintain the total at 1,500 (that is, approximately 5% of the total membership). The Council will revisit the target percentage at least once every 10 years.

Q. Why is there a start-up procedure?

A. There are several reasons for starting the program with a well defined set of criteria for selecting an initial set of Fellows.

If the program is worth having then it should be up and running from the start with a substantial number of Fellows, so that it is a healthy program.

Future Fellows will be elected by current Fellows, so a sizable and diverse collection of initial Fellows is required to jump start the election process.

A well specified algorithm is required to avoid an otherwise massive task of individual evaluation of the initial set of Fellows. The algorithm should be clear in advance to avoid questions after the fact regarding who was selected and why.

Q. What is the start up algorithm?

A. The specifics of the algorithm for the “seed pool” are given in the proposal. The body of the seed pool will be AMS members who have previously been selected to give an invited AMS address. This is not claimed to be the perfect way to start the Fellowship. However, bearing in mind that a fairly large well defined group is desirable to seed the Fellowship, this choice is practical and reasonable. Every person in the group has been selected by one of a very large number of AMS committees. There are approximately six AMS selection committees in operation every year and half their membership changes every year. Hence in the past 50 years a very significant percentage of the membership has had input in selecting the invited speakers. Of course the speaker selection criteria are not identical to the criteria the Election committee will use for future Fellows. However, there are a number of criteria in common, including excellence in mathematics. Furthermore, no other mechanism for creating the seed pool would immediately provide a group of about 1,000 Fellows whose selection involved many members of the AMS.

The seed pool will be augmented by some additional people. This includes 50 Fellows to be selected by an appointed AMS committee charged with increasing the number of Fellows recognized for their contributions to education and service to the profession and to increase

the number of women and underrepresented minorities in the seed pool.

The start up procedure is not designed to select all worthy recipients, but to provide a feasible, rational way to begin the Fellowship. It is to be stressed that future Fellows will be elected without being constrained by the start up algorithm.

Q. How will the Fellows program be changed in the future?

A. The current proposal for the Fellows program was created by the Council, and it can be modified by the Council in the future. The details of administering the program may be changed in the future to address practical needs, even as the program is initially implemented.

Q. How can I find out more about the Fellows program?

A. Updated information will appear at

<http://www.ams.org/secretary/fellows-info>.

That site will also contain a form to ask questions about the program.