

CHARTER
THE SPECIAL INTEREST GROUP OF THE MAA
ON
Environmental Mathematics
Accepted January 2021

Article I. Identification

Section 1. The name of this SIGMAA is The Special Interest Group of the MAA on Environmental Mathematics which will usually be shortened to The SIGMAA on Environmental Mathematics. The group will usually be referred to as SIGMAA EM.

Section 2. Mathematical focus and purpose

The primary purpose is to provide a forum for discussion and promotion of mathematical analysis and problem-solving arising from environmental sources.

This will be focused around areas such as:

1. **Advocacy:** We will contribute to an awareness of our responsibility to address environmental issues and to utilize sound mathematical analysis to support such promotional activities. Such efforts will be focused on our own profession or institutions, perhaps contributing to a further greening of the MAA, or more globally through efforts with public school systems or in the media.
2. **Education:** We look to foster the inherent environmental interests of young people and to support efforts to bring sustainability and ethical reasoning into the mathematics curriculum at multiple levels.
3. **Research:** We will provide opportunities to engage in and discuss the mathematics arising from environmental issues. Since environmental issues are inherently interdisciplinary- lend themselves to team efforts- and offer an abundance of mathematical content at many levels, we support the opportunity to interact with specialists from other disciplines, including physical and social scientists and engineers that work to address these same issues.

These goals demonstrate to the larger community that mathematics recognizes its responsibility to address issues important to society.

Article II. Membership

Section 1. Membership in the SIGMAA EM will be open to all MAA members. SIGMAA EM members will be those MAA members who have paid the SIGMAA EM membership dues.

Article III. Administration

Section 1. Officers and Executive Committee

Elected officers of the SIGMAA EM will be a

1. chair,
2. vice chair,
3. secretary & treasurer,
4. web coordinator and
5. program coordinator.

The SIGMAA Executive Committee comprises these 5 officers.

A SIGMAA EM member with special expertise may be appointed by the SIGMAA EM chair, after consultation with other SIGMAA EM officers, to a two-year term as an ex-officio member of the SIGMAA EM Executive Committee to fulfill a special need for the SIGMAA EM.

Section 2. Duties of the officers

Chair:

- Preside over the Business Meetings and also create the agenda.
- Represent the SIGMAA EM at the SIGMAA officer meetings, or ensure representation from officers if unable to attend
- Serve as liaison with the MAA Executive Committee and staff and other organizations.
- Be the chief spokesperson for the SIGMAA EM
- Report to the membership semiannually on MAA Connect

Vice Chair:

- Will serve in the chair's place if the chair is temporarily unable to fulfill his/her duties.
- Will maintain the membership roll and have primary responsibility for membership development and retention.
- Plans social gatherings of the SIGMAA EM

- Ensure compliance with the MAA rules and procedures governing SIGMAAs and the SIGMAA EM charter
- Promote student sessions, such as EM inclusion in student poster sessions

Secretary/Treasurer:

- Submits all financial requests to MAA
- Will keep a record of the affairs of the SIGMAA
- Submit required written reports to the Committee on SIGMAAs
- Takes minutes at business meeting and submits it within a week of the meeting to the executive board for approval.
- Report to the SIGMAA membership on MAA Connect
 - Minutes from meetings
 - activities that happened at most recent meeting.
 - List of activities scheduled up through the next meeting.

Web Coordinator:

- Overseeing electronic communications, including:
 - MAA connect
 - SIGMAA EM email list through MAA
- Post monthly to MAA Connect
- Meeting reminder emails one month before national meetings and SIGMAA events
- Post all links to EM related websites
- Manage interactive web interface to allow for real-time sharing and communication.

Program Coordinator:

- Solicit proposals for EM sessions such as contributed paper sessions and minicourses at MathFest and JMM as well as other workshops from the SIGMAA EM membership
- Serves as a liaison with the MAA Associate Secretary to reserve rooms for all SIGMAA events at national meetings.
- Submit proposals for SIGMAA EM events at the national meetings as needed.
- Creates other programs for the SIGMAA EM as needed

Section 3. Terms of office, nominations, and elections

a) Nominating Committee:

The Nominating Committee will solicit suggestions and volunteers for office from the membership and then select a slate of one or more candidates for office open in any given year. The nominating committee will consist of:

1. The Past Chair

2. Two (2) SIGMAA EM members appointed by the SIGMAA EM Executive Committee.

b) Process:

The membership will nominate and elect officers electronically. The MAA will distribute to the SIGMAA EM members instructions for voting. The electronic ballot will indicate that write-in votes are permitted. The winner will be the candidate receiving the most votes. Ties will be broken by a fair, unbiased random process supervised by the MAA.

If fewer than 20 members vote, the current officers will remain in office until further deliberate actions are taken to achieve a quorum (see section V.1 for the definition of quorum.)

Note: The use of the term "electronic" throughout this document will be understood to refer to any widely accepted form of electronic communication, such as e-mail, internet chat or call, web-conferencing, web-surveying, discussion board, etc.

Voting opens: October 1

Voting closes: October 31

c) Terms:

The terms for each position will begin at the conclusion of the Joint Mathematics Meetings in January following the October election.

1. Chair serves for two years, then becomes past chair.
2. Vice Chair serves for two years.
3. Secretary/Treasurer serves for two years.
4. Web Coordinator serves for two years.
5. Program Coordinator serves for two years.

Odd years: Votes for Vice Chair, and Secretary/Treasurer,

Even years: Votes for Chair, Web Coordinator, and Program Coordinator.

- d) Vacancies:** Should the office of the chair become vacant midterm, the SIGMAA EM Executive Committee will appoint a member of the SIGMAA EM Executive Committee to fill the office of chair for the remainder of the term. Should an office other than chair become vacant midterm, including the one vacated by the person assuming the chair office, the SIGMAA EM Executive Committee, in consultation with the most recent Nominating Committee, will appoint a member of the SIGMAA EM to fill that office for the remainder of the term of office.

Article IV. Activities

Section 1. SIGMAAs comprise a program of the MAA and are not separate entities from the association. For this reason, all administrative, financial and programmatic activities of the SIGMAAs must operate in a manner consistent with MAA operating procedures in order to maintain the tax-exempt status of the association. To the extent that any SIGMAA charter contradicts the policies and procedures of the MAA, the MAA policies and procedures will supersede.

Section 2. This SIGMAA EM will engage in activities including, but not limited to, the following:

- Hold a minimum of 1 business meeting per year. The meeting will be held in conjunction with a national event such as a national MAA meeting. The meeting might include planning of other SIGMAA events, recruiting for any empty board positions, a social or professional event, or other SIGMAA business.
- Sponsor invited speakers. Speakers will promote the work of environmental mathematics. The sessions may occur in conjunction with other SIGMAA events such as at the business meeting, national meetings, regional meetings, or online. When possible, these sessions will be open to all, not just SIGMAA-EM members, to expand the reach of the SIGMAA.
- Hold paper or poster sessions. These sessions will be available to promote members and students. They may occur at national or regional MAA events, or other events that include Environmental mathematics. Prizes may be considered for student sessions.
- Sponsor receptions. Receptions will be held when funding or sponsorship is available. The receptions should be held in a location and format that engages members and promotes networking. Larger events will be targeted for receptions since more members will likely be present.
- Facilitate professional development opportunities. These opportunities might overlap with guest speakers and paper or poster sessions but might also expand to more extensive events such as workshops or training opportunities. The SIGMAA-EM will consider partnering with other groups or events whenever professional development opportunities seem to be beneficial to the membership.
- Maintain a webpage. The webpage will contain information about the SIGMAA, the SIGMAA officers, the Charter, meeting minutes, upcoming event information, and relevant resources. The webpage will be maintained by the web coordinator.
- Promote sustainable practices within the MAA community. The SIGMAA will partner with the MAA to make suggestions regarding sustainability at meetings and gatherings. The

SIGMAA will also be available to assist the regional and local MAA groups who wish to promote or learn about sustainable practices.

Section 3. Interactions within the association

- (a) No current formal relationships exist with other groups.
- (b) Any product of the SIGMAA EM belongs to the MAA; therefore, the SIGMAA EM chair should collect signed copyright agreements from the creators of the product.
- (c) Reports of SIGMAA EM activities will be included in an annual report submitted by the SIGMAA EM secretary/treasurer to the MAA Committee on SIGMAAs chair.

Article V. Membership Meetings

Section 1. Quorum

A quorum at any membership meeting, including electronic meetings, will consist of at least 20 members, at least two of whom are officers.

Section 2. Frequency and location of meetings

At least one business meeting of the SIGMAA will take place at MathFest or JMM. Other activities may also be scheduled for MAA section meetings. All business outside the annual meeting held during MathFest or JMM will be conducted electronically provided a quorum is attained.

Section 3. Conduct of meetings

The SIGMAA EM chair will preside over the annual business meeting held during JMM or MathFest. The chair will circulate an agenda electronically one month in advance and will request additional agenda items at that time. During the meeting, the chair will allow ample time for discussion and will seek to achieve consensus. If a consensus is not reached, decisions will be made by a vote in accordance with Robert's Rules of Order.

When the SIGMAA EM Executive Committee decides that an issue requires attention of the entire SIGMAA EM in advance of the next membership meeting, the committee may decide to convene a meeting electronically. The quorum definition in section V.1 applies to any vote conducted electronically, and ample time for discussion will still be allowed. Members will be given at least two weeks to vote on any issue requiring an electronic vote.

Article VI. Finances

Section 1. An annual MAA dues supplement will be assessed of each member of the SIGMAA EM. The dues supplement will be used to support activities of the SIGMAA EM. The manner of collection and disbursement of these funds will be determined by the MAA Executive Committee. The SIGMAA EM may formally submit a request to the MAA Committee on SIGMAAs to change the dues supplement. If approved, the committee will forward a recommendation to the MAA Executive Committee for final approval. The MAA Executive Committee may also initiate a change in the dues supplement.

Section 2. The SIGMAA EM is not required to submit an annual budget if they do not expect to spend more than they bring in over the course of the year. The SIGMAA EM does not accumulate funds from year to year so current expenses are limited to current revenues unless the SIGMAA EM submits a request as detailed in section VI.3.

Section 3. The SIGMAA EM may apply to the MAA for specific funding beyond that provided by the dues supplement. All requests for funds will be substantiated in a budget for the proposed expenditures and must be approved by the MAA deputy executive director.

Article VII. External Funding

Section 1. The SIGMAA EM may initiate grant proposals to be submitted by the MAA. The SIGMAA EM will follow the policies and procedures of the MAA for all such submissions.

Section 2. Neither the SIGMAA EM nor any officer nor any representative thereof will have any authority to contract debts for, pledge the credit of, or in any way bind the MAA.

Article VIII. Changes to Charter

Section 1. Changes to this charter may be proposed by the SIGMAA EM if a recommendation for such changes is supported by two-thirds of the members voting, provided a quorum is attained. Notice of the proposed changes must be sent to the membership via e-mail, allowing at least one month for discussion. The proposed

changes must then be submitted for consideration to the Committee on SIGMAAs, which will forward a recommendation after approval to the MAA Executive Committee.

Section 2. Changes to this charter may also be initiated by the MAA Executive Committee, which will forward such a request to the Committee on SIGMAAs. In turn, the committee will work with the SIGMAA EM to develop specific new language for the charter that is acceptable to the SIGMAA EM (as indicated by a two-thirds majority of the members voting, provided a quorum is attained) and the MAA Executive Committee. The Committee on SIGMAAs will then forward the revised charter to the MAA Executive Committee for approval. Changes must then be approved by the MAA Board of Governors.

Article IX. Dissolution

Section 1. The SIGMAA EM will be dissolved for either of the following reasons:

- (a) Failure to maintain at least 20 members for two consecutive years.
- (b) Approval of a recommendation from the MAA Executive Committee (on its own or based on a recommendation by the Committee on SIGMAAs) by a majority vote of the MAA Board of Governors.

Section 2. If dissolved, any unspent funds of this SIGMAA EM will be returned to the general fund of the MAA.