Conferences and Workshops in the Mathematical Sciences

PROGRAM SOLICITATION
NSF 21-541

REPLACES DOCUMENT(S):
NSF 16-550

National Science Foundation

Directorate for Mathematical and Physical Sciences
Division of Mathematical Sciences

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

Proposals Accepted Anytime

Proposals must be submitted to the appropriate DMS disciplinary program in accordance with the lead-time requirements, submission windows, or deadlines posted on the DMS Programs page.

IMPORTANT INFORMATION AND REVISION NOTES

This revision updates the reference to the PAPPG section concerning conference proposals and provides minor clarifications to budgets, submission deadlines, and annual reporting requirements.

Innovating and migrating proposal preparation and submission capabilities from FastLane to Research.gov is part of the ongoing NSF information technology modernization efforts, as described in Important Notice No. 147 . In support of these efforts, proposals submitted in response to this program solicitation must be prepared and submitted via Research.gov or via Grants.gov and may not be prepared or submitted via FastLane.

Any proposal submitted in response to this solicitation should be submitted in accordance with the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG).

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Conferences and Workshops in the Mathematical Sciences

Synopsis of Program:

Conferences, workshops, and related events (including seasonal schools and international travel by groups) support research and training activities of the mathematical sciences community. Proposals for conferences, workshops, or conference-like activities may request funding of any amount and for durations of up to three years. Proposals under this solicitation must select "Conference" as the proposal type, and they must be submitted to the appropriate DMS programs in accordance with the lead-time requirements, submission windows, or deadlines specified on the program web page. See the DMS Programs page and click on the appropriate program for program-specific information.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Tomek Bartoszynski, telephone: (703) 292-4885, email: tbartosz@nsf.gov
- Marian Bocea, telephone: (703) 292-2595, email: mbocea@nsf.gov
- Stefaan G. De Winter, telephone: (703) 292-2599, email: sgdewint@nsf.gov
- James M. Douglass, telephone: (703) 292-2467, email: MDOUGLAS@nsf.gov
- Pedro F. Embid-Droz, telephone: (703) 292-4859, email: pembid@nsf.gov
- Zhilan J. Feng, telephone: (703) 292-7523, email: zfeng@nsf.gov

- Yuliya Gorb, telephone: (703) 292-2113, email: ygorb@nsf.gov
- Joanna Kania-Bartoszynska, telephone: (703) 292-4881, email: jkaniaba@nsf.gov
- Swatee Naik, telephone: (703) 292-4876, email: snaik@nsf.gov
- Yong Zeng, telephone: (703) 292-7299, email: yzeng@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.049 --- Mathematical and Physical Sciences

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 10 to 100

Number of awards depends on funding available.

Anticipated Funding Amount: $200,000 to $4,000,000

Up to $4,000,000 per year, pending availability of funds.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

Limit on Number of Proposals per PI or co-PI:

There are no restrictions or limits.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Not required
- **Preliminary Proposal Submission:** Not required
- **Full Proposals:**
  - Full Proposals submitted via Research.gov: *NSF Proposal and Award Policies and Procedures Guide* (PAPPG) guidelines apply. The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summm.jsp?ods_key=pappg.
  - Full Proposals submitted via Grants.gov: *NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov* guidelines apply (Note: The *NSF Grants.gov Application Guide* is available on the Grants.gov website and on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide).

B. Budgetary Information

- **Cost Sharing Requirements:**

  Cost Sharing is not required under this solicitation.

- **Indirect Cost (F&A) Limitations:**

Not Applicable

- **Other Budgetary Limitations:**

  Not Applicable

C. Due Dates

- **Full Proposal Deadline(s)** (due by 5 p.m. submitter's local time):

  Proposals Accepted Anytime

  Proposals must be submitted to the appropriate DMS disciplinary program in accordance with the lead-time requirements, submission windows, or deadlines posted on the DMS Programs page.

Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria. Additional merit review criteria apply. Please see the full text of this solicitation for further information.

Award Administration Information

Award Conditions:

Standard NSF award conditions apply.

Reporting Requirements:

Additional reporting requirements apply. Please see the full text of this solicitation for further information.

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I. INTRODUCTION

The Division of Mathematical Sciences (DMS) has long supported conferences, workshops, and related activities. Examples of related activities include longer-term or larger-scale events such as multi-institutional regional meetings, summer or winter schools, and international travel by groups of mathematical scientists.

Proposals for conferences normally request funding in the range of $5,000 to $50,000. Proposals for a multi-year conference series or other kinds of conference-like activities may request funding of any amount and a duration of up to three years. A budget request higher than $50,000 may require additional processing time.

Proposals must be submitted to the appropriate DMS disciplinary program in accordance with the lead-time requirements, submission windows, or deadlines specified on the program web page. For more information, refer to the particular disciplinary program web page listed on the DMS Programs page.

The National Science Foundation is committed to strengthening and enriching the science personnel base of our nation. DMS expects organizers of conferences

and meetings to assist its efforts to broaden participation in the mathematical sciences by members of under-represented groups. How these human resource issues are addressed in the proposed project description is one of the factors used in reaching a recommendation on the proposed project. In addition, NSF requires that conferences or meetings and the facilities in which they are held must be accessible to participants with disabilities if the events are funded in whole or in part with NSF funds.

II. PROGRAM DESCRIPTION

Conferences, workshops, and related activities provide opportunities to disseminate scholarly work widely, to reveal and plan new directions for research, and to engage and encourage students and junior scientists early in their careers, all of which help deepen connections among the mathematical sciences community. DMS particularly welcomes proposals for activities that can increase the number of mathematical scientists who participate in NSF-supported activities.

DMS Priorities

DMS priorities for the support of conferences, workshops, and related activities include:

- Breadth and diversity of participation, in order to help more mathematical scientists stay abreast of developments in the discipline;
- Involvement of students and junior investigators and of individuals from groups under-represented in the mathematical sciences, in order to contribute to the development of the nation's science personnel base;
- Connection to frontiers in the mathematical sciences, to NSF research priorities, and to federal initiatives and strategic areas, in order to advance the mathematical sciences and to strengthen the interchanges between the mathematical sciences and other science and engineering disciplines;
- Overall impact on the US mathematical sciences community.

Diversity and breadth of participation should be understood as applying to institutions as well as to individuals. In particular, it includes those institutions and individuals lacking other federal support.

For conference, workshop, and similar proposals, most funds are expected to be devoted to the support of participants who have no other federal support and participants who are students, post-doctoral scholars, or members of groups that are under-represented in the mathematical sciences.

International Conferences and Workshops

In general, funding to support participation in conferences held abroad is very limited. Requests for international travel by groups of US-based mathematical scientists, which ordinarily originate with US educational institutions or professional scientific societies, will be considered. Support for such group travel is intended only to facilitate US participation in a foreign-based conference or workshop that would run as a high-quality event even without DMS-supported participants. DMS will not support a significant portion of the main speakers or participants at an event held abroad; conferences in which the majority of participants are US-based are eligible for DMS support only if held at a US location that allows for an activity with reasonable cost.

Shared support for group travel by several federal agencies, states, or private organizations is permissible and encouraged. Other opportunities for cooperation between US mathematical scientists and those of other countries are provided by the Office of International Science and Engineering (OISE) at NSF. For additional detailed information, consult the OISE home page. DMS supports individual requests for international travel as part of regular research proposals but will **not** consider separate proposals for support of an individual's travel.

III. AWARD INFORMATION

Anticipated Type of Award: Continuing Grant or Standard Grant

Estimated Number of Awards: 10 to 100 depending on funding available to disciplinary programs.

Anticipated Funding Amount: Up to $4,000,000 per year, pending availability of funds.

IV. ELIGIBILITY INFORMATION

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

Limit on Number of Proposals per PI or co-PI:

There are no restrictions or limits.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Research.gov, or Grants.gov.

- Full Proposals submitted via Research.gov: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the *NSF Proposal and Award Policies and Procedures Guide* (PAPPG). The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg. Paper copies of the PAPPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov. The Prepare New Proposal setup will prompt you for the program solicitation number.
- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the *NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov*. The complete text of the *NSF Grants.gov Application Guide* is available on the Grants.gov website and on the NSF website at: (https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via Research.gov. PAPPG Chapter II.D.3 provides additional information on collaborative proposals.

See PAPPG Chapter II.E for guidance on the required sections of a Conference proposal submitted to NSF.

In Research.gov or Grants.gov, select **"Conference"** as the **proposal type**.

This solicitation contains information that supplements the PAPPG or NSF Grants.gov Application Guide proposal preparation guidelines. **In addition to** the requirements listed in the subsection addressing Conference Proposals in Chapter II of the PAPPG (Proposal Preparation Instructions), investigators are directed to pay particular attention to the contents of **DMS Priorities** in Section II and the **Additional Review Criteria** in Section VI.A below. Proposals that do not provide the necessary information will be returned without review.

All proposals for conferences, workshops, or related activities **must**

- Offer a strong scientific reason for the proposed activity;
- Distinguish the planned project from other conferences and activities, particularly from recent or similar activities;
- Justify, if appropriate, how well any prior NSF support was used in preliminary or precursor activities;
- Devote substantial funds to support participation by individuals who do not have other federal support, or who are students, post-doctoral scholars, or from under-represented groups;
- Describe plans to recruit and involve a diversity of participants, both individuals and institutions;
- Describe plans for disseminating results of the activity.

Note that these criteria permit a conference to coincide with a personal or community anniversary or an occasion honoring an individual's contributions, but such a coincidence is not a scientific reason and thus will not satisfy this requirement. Also note that dissemination plans may include proceedings, web sites, special articles in various publications, special issues of journals, or special talks/presentations to students. Such steps broaden the impact of the activity. If funding for a "year n+1" NSF-funded conference is being requested, proposals should document how effective the previous "n" years of support were used and justify the impact of another year of funding.

This required information should be detailed enough to answer the following questions:

- What is the purpose of this activity? How is it different from others?
- What is the scientific focus? Why is this topic timely and important?
- How will the activity or conference be structured? Be specific.
- Who will be involved? If there is an organizing committee, who are its members? If there is a management team, who are its members? If multiple institutions are involved, what is the overall management plan? Who are the planned senior participants (e.g., invited speakers, session directors)? How will participants be recruited and chosen? If appropriate, how will the activity be widely advertised, so that broad participation can be achieved? What steps will be taken to ensure diversity (women, minorities, persons with disabilities; institutional; geographical; and other aspects of diversity)?
- Where and when will the activity be held? What facilities will be used?

- What steps will be taken to disseminate the results of the activity?

B. Budgetary Information

Cost Sharing:

Cost sharing is not required under this solicitation.

C. Due Dates

- **Full Proposal Deadline(s)** (due by 5 p.m. submitter's local time):

  Proposals Accepted Anytime

  Proposals must be submitted to the appropriate DMS disciplinary program in accordance with the lead-time requirements, submission windows, or deadlines posted on the DMS Programs page.

D. Research.gov/Grants.gov Requirements

For Proposals Submitted Via Research.gov:

To prepare and submit a proposal via Research.gov, see detailed technical instructions available at: https://www.research.gov/research-portal/appmanager/base/desktop?_nfpb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationandSubmission.html. For Research.gov user support, call the Research.gov Help Desk at 1-800-673-6188 or e-mail rgov@nsf.gov. The Research.gov Help Desk answers general technical questions related to the use of the Research.gov system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: https://www.grants.gov/web/grants/applicants.html. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

Proposers that submitted via Research.gov may use Research.gov to verify the status of their submission to NSF. For proposers that submitted via Grants.gov, until an application has been received and validated by NSF, the Authorized Organizational Representative may check the status of an application on Grants.gov. After proposers have received an e-mail notification from NSF, Research.gov should be used to check the status of an application.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF either as *ad hoc* reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in PAPPG Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: https://www.nsf.gov/bfa/dias/policy/merit_review/.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in *Leading the World in Discovery and Innovation, STEM Talent Development and the Delivery of Benefits from Research - NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026* . These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the strategic objectives in support of NSF's mission is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions must recruit, train, and prepare a diverse STEM workforce to advance the frontiers of science and participate in the U.S. technology-based economy. NSF's contribution to the national innovation ecosystem is to provide cutting-edge research under the guidance of the Nation's most creative scientists and engineers. NSF also supports development of a strong science, technology, engineering, and mathematics (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

NSF's mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (PAPPG Chapter II.C.2.d(i). contains additional information for use by proposers in development of the Project Description section of the proposal). Reviewers are strongly encouraged to review the criteria, including PAPPG Chapter II.C.2.d(i), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
    a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
    b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and other underrepresented groups in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

Additional Solicitation Specific Review Criteria

In decisions about proposals submitted for this solicitation, DMS program officers will consider carefully how well proposals meet the **DMS Priorities** described

in Section II. These are

- Diversity and breadth of participation by individuals and institutions;
- Involvement of participants from under-represented groups and of students and junior investigators;
- Connection to frontiers of mathematical sciences and between mathematical sciences and other science and engineering disciplines;
- Overall impact on the US mathematical sciences community.

Recall from the Proposal Preparation Instructions that all proposals for conferences, workshops, or related activities **must**

- Offer a strong scientific reason for the proposed activity;
- Distinguish the planned project from other conferences and activities, particularly from recent or similar activities;
- Justify, if appropriate, how well any prior NSF support was used in preliminary or precursor activities;
- Devote substantial funds to support participation by individuals who do not have other federal support, or who are students, post-doctoral scholars, or from under-represented groups;
- Describe plans to recruit and involve a diversity of participants, both individuals and institutions;
- Describe plans for disseminating results of the activity.

Note that these criteria permit a conference to coincide with a personal or community anniversary or an occasion honoring an individual's contributions, but such a coincidence is not a scientific reason and thus will not satisfy this requirement. Also note that dissemination plans may include proceedings, web sites, special articles in various publications, special issues of journals, or special talks/presentations to students. Such steps broaden the impact of the activity. If funding for a "year n+1" NSF-funded conference is being requested, proposals should document how effective the previous "n" years of support were used and justify the impact of another year of funding.

This required information should be detailed enough to answer the following questions:

- What is the purpose of this activity? How is it different from others?
- What is the scientific focus? Why is this topic timely and important?
- How will the activity or conference be structured? Be specific.
- Who will be involved? If there is an organizing committee, who are its members? If there is a management team, who are its members? If multiple institutions are involved, what is the overall management plan? Who are the planned senior participants (e.g., invited speakers, session directors)? How will participants be recruited and chosen? If appropriate, how will the activity be widely advertised, so that broad participation can be achieved? What steps will be taken to ensure diversity (women, minorities, persons with disabilities; institutional; geographical; and other aspects of diversity)?
- Where and when will the activity be held? What facilities will be used?
- What steps will be taken to disseminate the results of the activity?

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review, or Internal NSF Review.

Proposals with budgets not exceeding $50,000 are typically reviewed internally at NSF in accordance with NSF policy. Proposals with budgets higher than $50,000 but no more than $100,000 may either be reviewed internally at NSF with the Division Director's permission, or sent for at least three external reviews. For proposals with budgets that exceed $100,000, three or more external reviews are solicited. In each case, the managing program officers in the relevant program(s) make the final decisions taking into account reviews, the PAPPG as well as the additional review criteria in the solicitation, and the program's portfolio and priorities.

Reviewers will be asked to evaluate proposals using two National Science Board approved merit review criteria and, if applicable, additional program specific criteria. A summary rating and accompanying narrative will generally be completed and submitted by each reviewer and/or panel. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF strives to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new awardees may require additional review and processing time. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director acts upon the Program Officer's recommendation.

After programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements or the Division of Acquisition and Cooperative Support for review of business, financial, and policy implications. After an administrative review has occurred, Grants and Agreements Officers perform the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

Once an award or declination decision has been made, Principal Investigators are provided feedback about their proposals. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers or any reviewer-identifying information, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to *the submitting organization* by an NSF Grants and Agreements Officer. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award notice, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award notice; (4) the applicable award conditions, such as Grant General Conditions (GC-1)*; or Research Terms and Conditions* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award notice. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF's Website at https://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

Administrative and National Policy Requirements

Build America, Buy America

As expressed in Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers (86 FR 7475), it is the policy of the executive branch to use terms and conditions of Federal financial assistance awards to maximize, consistent with law, the use of goods, products, and materials produced in, and services offered in, the United States.

Consistent with the requirements of the Build America, Buy America Act (Pub. L. 117-58, Division G, Title IX, Subtitle A, November 15, 2021), no funding made available through this funding opportunity may be obligated for an award unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States. For additional information, visit NSF's Build America, Buy America webpage.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). No later than 120 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

In the annual reports, when applicable, investigators must include lists of participants, brief descriptions of the sessions, a statement about steps taken to disseminate the results of the activities, and a complete accounting of the use of NSF funds. In particular, the summary of the use of funds must provide complete information about who received support and the level of that support, in order to verify that the funds were used to meet the objectives of diversity and broadening participation as well as of scientific merit. This information should be integrated within the "Accomplishments" and/or "Impact" sections of the annual reports.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Tomek Bartoszynski, telephone: (703) 292-4885, email: tbartosz@nsf.gov
- Marian Bocea, telephone: (703) 292-2595, email: mbocea@nsf.gov

- Stefaan G. De Winter, telephone: (703) 292-2599, email: sgdewint@nsf.gov
- James M. Douglass, telephone: (703) 292-2467, email: MDOUGLAS@nsf.gov
- Pedro F. Embid-Droz, telephone: (703) 292-4859, email: pembid@nsf.gov
- Zhilan J. Feng, telephone: (703) 292-7523, email: zfeng@nsf.gov
- Yuliya Gorb, telephone: (703) 292-2113, email: ygorb@nsf.gov
- Joanna Kania-Bartoszynska, telephone: (703) 292-4881, email: jkaniaba@nsf.gov
- Swatee Naik, telephone: (703) 292-4876, email: snaik@nsf.gov
- Yong Zeng, telephone: (703) 292-7299, email: yzeng@nsf.gov

For questions related to the use of FastLane or Research.gov, contact:

- FastLane and Research.gov Help Desk: 1-800-673-6188
- FastLane Help Desk e-mail: fastlane@nsf.gov
- Research.gov Help Desk e-mail: rgov@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

Please consult a Program Officer who represents the DMS program corresponding to the proposed meeting's topical area. See https://www.nsf.gov/funding/programs.jsp?org=DMS for a list of DMS programs. A proposal may identify more than one program of interest. A conference proposal without a disciplinary focus may be eligible under certain circumstances for submission to the Mathematical Sciences Infrastructure program. Please check that program's webpage for applicable details.

IX. OTHER INFORMATION

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "NSF Update" also is available on NSF's website.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at https://www.grants.gov.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the *NSF Proposal & Award Policies & Procedures Guide* Chapter II.E.6 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

> The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at https://www.nsf.gov

- **Location:** 2415 Eisenhower Avenue, Alexandria, VA 22314
- **For General Information** (NSF Information Center)**:** (703) 292-5111
- **TDD (for the hearing-impaired):** (703) 292-5090
- **To Order Publications or Forms:**

  Send an e-mail to: nsfpubs@nsf.gov

  or telephone: (703) 292-8143
- **To Locate NSF Employees:** (703) 292-5111

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See System of Record Notices, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, "Reviewer/Proposal File and Associated Records." Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Policy Office, Division of Institution and Award Support
Office of Budget, Finance, and Award Management
National Science Foundation
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