Submission Guidelines

PIs must submit proposals in PDF format online at the Submission page. Please consult the Online Submission Instructions page for detailed information on submitting a proposal through the online system. Note well: For FY 2016 there have been some significant changes to the Program. Please read these guidelines carefully.

Grants for Research in Mathematics

The National Security Agency Mathematical Sciences Program (NSA MSP) supports self-directed, unclassified research in the areas of Algebra, Number Theory, Discrete Mathematics, Probability and Statistics. The program does not support research in cryptology.

Following a policy announced in last year's guidelines, this year we will accept proposals for Young Investigator Grants and proposals for conferences, research experiences for undergraduates, and special situations only. Applications for the Standard Grant will not be accepted this year; we expect that we will accept applications for Standard Grants next year.

Selection Criteria

Awards for grants will be made on the basis of factors that demonstrate the scientific merit of the proposal, including:

1. The prospect that the research will lead to important discoveries.
2. The prospect that the research will produce innovations or significant improvements in investigative methods, including methods of computation.
3. The investigator's scientific qualifications and accomplishments.
4. The investigator's demonstrated awareness of previous approaches to the problem.

The NSA MSP attempts to have a wide geographic and institutional distribution of support, and NSA encourages proposals from traditionally underrepresented groups. Accordingly, proposals will also be evaluated on the broad impact of the proposed research.

Technical Evaluation

Research proposals are reviewed by mathematicians at NSA and/or
by Mathematics Review Panels in each subject area which are appointed and administered by the American Mathematical Society (AMS). The members of these panels choose peer reviewers to evaluate each proposal. The panels meet annually to discuss, rank, and order the proposals according to the scientific merit of the proposed research and the Principal Investigator's ability, utilizing the peer reviews and the expertise of the panel members. If graduate student support is requested, the principal investigator's proven ability at advising graduate students will be considered. The final AMS ordering will be used by the NSA Mathematical Sciences Program Office to make funding decisions.

**Disclosure of Information**

Although it is the intent of the NSA MSP that the research it supports will produce only unclassified results, it should be recognized that research in sensitive areas might produce information where disclosure could harm U.S. national security. Thus, the following disclosure policy is incorporated in each NSA grant:

"It is expected that the recipient may make formal public disclosure of the scientific and technical information resulting from this Agreement e.g., release articles for appropriate professional publications or present papers at scientific meetings or symposia. The Performing Organization agrees to provide to the Government, concurrent with public disclosure, a copy of such articles, reports, or information resulting from this work in consulting or discussing this and related information with other qualified individuals or groups of individuals, where appropriate, for furthering research. In the event that the researcher believes information generated during the research may require classification, the researcher shall notify NSA and request that the information be reviewed. The parties shall work expeditiously to evaluate the information and mutually establish appropriate handling and disposition guidelines."

**General Restrictions**

Awards will be made to non-profit institutions located in the United States only and will be based on a formal proposal submitted by an organization on behalf of the principal investigator(s). The Young Investigator Grant provides up to two months of summer salary.

Individuals who have a grant from another United States government agency (such as the NSF) that supports any of their research are ineligible to receive an NSA MSP Young Investigator Grant for the same time period. We expect that proposals which are selected for funding this cycle will have their funding go into effect in the Spring of 2017 for a period of two years. Accordingly, individuals who have grants to support their research from another U.S. government agency during that period will not be eligible to accept a Young Investigator Grant.

**Who May Submit**
It is NSA's intent to maintain America's domestic capabilities in mathematics at the highest level. Therefore, for mathematics grants, all principal investigators supported by a MSP grant must be U.S. citizens or permanent residents. Students and postdoctoral researchers supported by the grant must be U.S. citizens or permanent residents who fully intend to become U.S. citizens after the requisite waiting period. To be eligible for an award, the organization must have submitted a certificate of Assurance or Compliance with Title VI of the Civil Rights Act of 1964 and be constantly in compliance with the Act.

**When and How to Submit**

The NSA MSP no longer accepts hard-copy submissions. Please submit proposals using the [web-based submission system](https://sam.msp.org/nsa-ams//about/program/guidelines.html). Proposals may be submitted annually beginning on September 1. The next deadline for receipt of all grant proposals is **6pm (PDT) on October 22, 2015**.

Selection notifications for Research Experiences for Undergraduates will be sent to the PI in January, 2016, and awards will be made in April, 2016. Selection notifications for conferences and other special situations are made throughout the year. Selection notifications for Young Investigator Grants will be sent to the PI in the summer of 2016, and awards will be made when NSA receives its grant allocation during fall 2016. Therefore, it is anticipated that awards for Young Investigator Grants will occur between February 2017 and May 2017.

**I. The Young Investigator Grant**

This award is available to promising investigators within ten years after receiving the Ph.D. The basic award has a bottom line figure of $20,000 per year for each of two years. Awards cover the direct costs of up to two months of summer salary per year plus fringes, up to $4,000 for travel expenses, and up to $2,500 for other expenses, such as computers or software. A Young Investigator proposal may also request graduate student support (other than tuition) not to exceed $5,000 (including fringe and direct costs) per student per year, as well as limited funds for computer equipment, as long as the total costs of the project fall within $20,000.

Previously, indirect costs on the Young Investigator Grant were limited to 15% of the budget. Recently, we have been instructed to allow indirect costs up to the full indirect rate charged by the PI's home institution. Regretfully, this change in government practice was not accompanied by an increase in our budget. Consequently, while the bottom line of your Young Investigator Grant remains at $20,000, a larger portion of the grant may have to be budgeted for indirect costs, leaving a smaller part for other purposes.

This year we also require that the PI obtain and provide institutional approval as part of the proposal submission process. Usually, the approval authority comes from the Sponsored Program Office (SPO). Since securing this approval may add an uncertain amount of time to the completion of your proposal, we urge you to make
the acquaintance of the SPO early and to work with them through the submission process.

In addition, we reiterate the condition listed under ‘General Restrictions’ above that a Young Investigator cannot also be supported by another U.S. government funding agency.

Please see the Sample Young Investigator's Budget Page for more information.

II. Conferences, Workshops including Research Experiences for Undergraduates (REUs) and Special Situations

Proposals for conferences, workshops, REUs or other special events may be for up to two years of support. These types of grants can also fund other innovative programs at a university in one of the designated research areas (i.e. algebra, number theory, discrete mathematics, probability or statistics). Efforts to promote attendance and participation by minorities and women are highly encouraged. The stipend awarded by NSA for a conference or workshop cannot exceed $25,000 for a single year and will normally range between $10,000 and $15,000. Requests for other activities in this category cannot exceed $125,000 per year.

It is expected that conference proposals will be submitted to and may be partially funded by other agencies as well as by the NSA. The budget may include travel expenses and honoraria for principal speakers, and travel, meals, and housing expenses for participants. Registration fees should be set at a level to encourage the participation of students. Grant funds cannot be used to pay for coffee breaks or refreshments; we recommend using registration fees to pay for these items. The budget for conferences, workshops, and special situations must not include any salary reimbursement. Therefore, it is inappropriate that any university indirect costs be incurred in this category.

Conferences, Workshops and Special Situations proposals are reviewed by either the NSA and/or the review panels appointed by AMS. Proposals must be submitted between September 1, 2015 and October 22, 2015, and notification of funding will be made by spring/summer 2016. The MSP does not authorize pre-award spending; thus PIs of spring conferences need to apply for funding two years prior to the conference. Please note that all participants whose expenses will be covered by the NSA MSP grant must be either U.S. citizens or permanent residents.

This year we also require that the PI obtain and provide institutional approval as part of the proposal submission process. Usually, the approval authority comes from the Sponsored Program Office (SPO). Since securing this approval may add an uncertain amount
of time to the completion of your proposal, we urge you to make the acquaintance of the SPO early and to work with them through the submission process.

What to Submit

PIs should be prepared to submit PDF files for each separate part of the proposal listed below. The proposal must contain the following:

Summary Page

A one-page summary of the work being proposed **beginning with the proposal title followed immediately with the name(s) of the PI(s) and the MSC codes (primary and secondary)**. The summary should be self-contained, avoid symbols, and be expressed in language understandable to a scientifically literate reader.

Description of Proposed Research

A detailed description (**no more than 20 pages**) of the research to be undertaken, its objectives and approach, and its relationship to the state of knowledge in the field and to comparable work in progress elsewhere. In this section, the PI is also required to provide additional pages that list pertinent literature citations of references for the description of proposed research (literature citations are **not** counted in the 20-page limit for this section).

Budget

Each grant application must include a budget for each academic year of the proposed time period which provides an itemized estimate of the total cost of the research project in that year. The Budget **must follow the format given in the sample pages**. Budgets given in narrative format will **not** be accepted. Links to the various types of sample budget pages may be found at the bottom of this web page and in the above descriptions of the three types of grants. If a portion of the total research cost is to be furnished by the proposing institution, or another funding agency, then the source and amount should be set forth separately from that money requested from NSA and should be indicated in a "cost share" column on the Budget Page.

More Budgeting Details

MSP Young Investigator Grants allow grant recipients to distribute their funding across various categories, such as summer salary, travel, equipment, and graduate student support. Similarly, recipients of Conference, Workshop, and Special Situation grants may allocate their funds to pay for the travel of plenary speakers, advertising costs, and registration fees.

The total budget for a Young Investigator Grant shall not exceed $20,000 per PI; this bottom line includes all of the items mentioned above and also includes all employee benefits and indirect costs.
The cost principles of OMB Circular A-21 will be applicable to agreements with educational institutions and the cost principles of OMB Circular A-122 shall be applicable for nonprofit organizations. For projects of more than one (1) year duration, separate estimates are required for each year.

Additional Budget Considerations and Reminders

- Collaborators/Consultants: The MSP recognizes collaborative efforts of the PI and his/her colleagues when performing math research. Travel arrangements that are made to cover the travel expenses of a collaborator/consultant must come from the PI's travel allocation, which is $4,000 per year. Note that the MSP will NOT pay for any Collaborators'/Consultants' salary. As with all persons benefiting from the grant, the collaborator/consultant must be either a U.S. citizen or permanent resident.
- Travel: The total travel budget (domestic plus foreign) per year is $4,000. The MSP requires that all foreign travel (defined as any travel outside of the United States to include Canada and Mexico) receive prior approval a month before the travel occurs.
- Technology Budget: Note that the budget for technology expenses such as computers, software, etc. is $2,500. All technology purchases must have appropriate documentation justifying the purchase.

Personnel

The qualifications of the principal investigator(s) and the time the principal investigator(s) will devote to the research are important factors in the selection of proposals for NSA support. See the section entitled WHO MAY SUBMIT for citizenship/immigration requirements.

For the principal investigator and the senior staff, include:

- a short biography and a selective list of major and/or current publications;
- information on other commitments of time, such as sabbatical or extended leave; and
- proportion of time to be devoted to this and other research. State whether the principal investigator or other key personnel have applied for or received support from other agencies for this or for other research.

List (by name if possible) postdoctoral, student, or other research assistants, and their training and experience.

Give the names of other technical personnel who will be working on the research, and describe their association with the project.

Bibliography

Include a complete bibliography for each individual. When relevant to the proposed research or indicative of the applicant's ability, include summaries of these and preprints or reprints of research not yet available in readily accessible journals.
Facilities and Equipment Available

Facilities and existing equipment available for the research should be described on this page. Indicate N/A if this does not apply to the proposal.

Proprietary Data

Identify any proprietary data within the proposal that is to be used for evaluation purposes only. Indicate N/A if this does not apply to the proposal.

Other Sponsors

Provide the names of other parties that have funded, are funding, or have been asked to fund proposed research by any of the investigators during the period of time covered by this proposed grant. Please use the format provided in the sample Current and Pending Support Page. Indicate N/A if this does not apply to the proposal.

Confirmation of Indirect Rates

Include the name, address, and phone number of the federal government audit agency that will confirm the indirect rates proposed in the budget, and a copy of the latest rate agreement (usually with the Department of Health and Human Services) covering at least the requested starting date of the grant.

Other Information Needed

You will be asked to provide the following basic information in the screens of the web-based submission system. For detailed instructions about the online submission process and more information about these items, please go to the Online Submission Instructions. Some of the information requested includes:

- Title of Proposed Research
- Mathematics Subject Classification code(s)
- Number of PIs working on the proposed research: Please be aware that if you are doing the proposed research with a co-PI from a different institution, then each PI will have to apply and submit his/her proposal separately. Indicate the co-PI's name in the proposal as this will enable the panelists to conduct reviews of the proposals at the same time. If you are submitting a proposal with a co-PI from the same institution, then only one of the PIs needs to apply and submit the proposal.
- PI first name, middle name (or initial), last name
- PI Contact Information
- Area of Proposed Research
- Type of Proposal
- Starting Date and Time Period of the proposed research
- Total funding requested each year
- Suggested Reviewers/Suggested Non-reviewers
- Organizational Endorsement and Approval Section: The investigator will be asked to provide the full name, postal...
Privacy Act Statement

Authority for collecting the requested information is 10 U.S.C. §2358. DoD's Blanket Routine Uses (found at Appendix C of 32 CFR Part 310) apply to this information. The information provided will be used to evaluate the qualifications of those persons who will perform the proposed research. This information may be disclosed to the American Mathematical Society and to U.S. Government Agencies as appropriate. Disclosure of the requested information is voluntary; however, failure to provide the requested information will delay or prevent evaluation of the proposal.

Grant Administration

The NSA Office of Contracting administers the non-technical aspects of grants. Further details, including General Provisions for NSA Grants and Cooperative Agreements, may be obtained from the following address.

Maryland Procurement Office
9800 Savage Road, Suite 6849
Ft George G. Meade, MD 20755-6849

For More Information

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SAMPLE PAGE

- Current and Pending Support Page

SAMPLE BUDGET PAGES

- Sample Young Investigator’s Budget Page
- Conferences, Workshops and Special Situations Grant Budget
Page

Sample REU Grant Budget Page

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