

**Federal Funding Opportunity
National Institute of Standards and Technology
FY 2009 Precision Measurements Grants Program**

Overview Information

1. Federal Agency Name(s): Department of Commerce, National Institute of Standards and Technology, Physics Laboratory
2. Funding Opportunity Title: Precision Measurement Grants Program
3. Announcement Type: Initial Announcement
4. Funding Opportunity Number: 2009-PMGP-01
5. Catalog of Federal Domestic Assistance (CFDA) Number(s): 11.609
6. Dates: Abbreviated Proposal Due: February 6, 2009, 5:00p.m. Eastern Standard Time
Finalists will be selected by approximately: March 27, 2009
Full Proposals Due: May 8, 2009, 5:00p.m. Eastern Daylight Time

Executive summary: The National Institute of Standards and Technology (NIST) announces that the Precision Measurement Grants Program is soliciting applications for financial assistance for FY 2009. The Precision Measurement Grants Program is seeking proposals for significant research in the field of fundamental measurement or the determination of fundamental constants.

Full Text of Announcement

a. Funding Opportunity Description:

Authority: 15 U.S.C. § 272 (b) and (c)

As part of its research program, since 1970 NIST has awarded Precision Measurement Grants primarily to universities and colleges so that faculty may conduct significant research in the field of fundamental measurement or the determination of fundamental constants. NIST sponsors these grants and cooperative agreements primarily to encourage basic, measurement-related research in universities and colleges and other research laboratories and to foster contacts between NIST scientists and those faculty members of academic institutions and other researchers who are actively engaged in such work. The Precision Measurement Grants are also intended to make it possible for researchers to pursue new ideas for which other sources of support may be difficult to find. There is some latitude in research topics that will be considered under the Precision Measurement Grants Program. The key requirement is that the proposed project is consistent with NIST's ongoing work in the field of basic measurement science.

b. Award Information:

Applicants should propose multi-year projects for up to three years at no more than \$50,000 per year. NIST anticipates spending \$100,000 this year for two new grants at \$50,000 each for the first year of the research projects. NIST may award both, one, or neither of these new awards. Second and third year funding will be at the discretion of NIST, based on satisfactory performance, continuing relevance to program objectives, and the availability of funds. Award start dates for new grants are expected to be October 1, 2009.

NIST plans to fund the awards as grants. If collaboration by NIST scientists in the scope of work is appropriate for any award, a cooperative agreement will be issued instead.

c. Eligibility Information

1. Eligible Applicants: Eligible applicants are institutions of higher education; hospitals; non-profit organizations; commercial organizations; state, local and Indian tribal governments; foreign governments; organizations under the jurisdiction of foreign governments; international organizations; and Federal agencies with appropriate legal authority.

2. Cost Sharing or Matching: No cost sharing or matching requirements apply to this program.

d. Application and Submission Information

1. Address to Request Application Package

All applicants must submit an abbreviated proposal based on this Notice. A completed SF-424 (R&R) form is required to be submitted with the abbreviated proposal. Abbreviated proposals may not be submitted through the Grants.gov website. However, abbreviated proposals may be submitted on paper by mail or delivery service or as an electronic file (SF-424 must be a scanned signed form) by email to mohr@nist.gov. The SF-424 (R&R) form can be found at http://www.grants.gov/agencies/aapproved_standard_forms.jsp#1

Applicants are requested to submit an abbreviated proposal with a description of their proposed work and related information with total length of five (5) or fewer double spaced pages (excluding SF-424) to: Dr. Peter J. Mohr, Manager, NIST Precision Measurement Grants Program, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8420, Gaithersburg, MD 20899-8420, Tel: (301) 975-3217, E-mail: mohr@nist.gov, Website: <http://physics.nist.gov/pmg>.

Full proposals submitted on paper should be submitted to the same place. A full application kit, containing all required application forms and certifications, will be provided to the finalists by Ms. Gail Newrock, 301-975-3200.

For electronic submission – At the finalist stage, users of Grants.gov (www.grants.gov) will be able to download a copy of the application package, complete it off line, and then upload and submit the application package and associated proposal information via the Grants.gov website. Applicants should follow the Application Instructions provided at Grants.gov when submitting a response to this Notice as well as the following information.

Instructions for Applying for the NIST Announcement 2009-PMGP-01 through Grants.gov:

Applicants who have not been notified that they are finalists should not send full proposals or submit applications through Grants.gov.

Finalist applicants may download and complete the package that is provided with this Federal Funding Opportunity Notice.

The list of certifications and assurances referenced in item 21 of the SF-424 is contained in the SF-424B. Block 8 of the SF-424 requires the applicant to supply its Employee Identification Number (EIN) or Taxpayer Identification Number (TIN). Applicants must provide the EIN or TIN of the organization within the applying institution that will be responsible for drawing down funds from the Automated Standard Application for Payment System (ASAP). Applicants who provide incorrect EIN or TIN may experience significant delays in receiving funds.

NOTE: The CD-346, Applicant for Funding Assistance is not available within the Grants.gov application package however it can be found at www.doc.gov/forms, completed and then attached to the application. A wet signature copy of the CD-346 may be required before an award will be made to the successful applicants.

If you choose to apply via Grants.gov all requirements of the application must be included.

For further information or questions regarding applying electronically for the 2009-PMGP-01 announcement please contact Christopher Hunton at 301-975-5718 or Christopher.hunton@nist.gov or Sue Li at sue.li@nist.gov.

The Grants.gov registration process must be completed before a new registrant can apply electronically. If all goes well, the registration process takes from 3 to 5 business days. If problems are encountered, the registration process can take up to 2 weeks. Only authorized individual(s) will be able to submit the application, and the system may need time to process a

submitted application. Applicants are strongly encouraged to start early and not to wait until the approaching due date before logging on and reviewing the instructions for submitting an application through Grants.gov. It may take several days or longer from the initial log-on before a new Grants.gov system user can submit an application. Applicants should save and print the proof of submission they receive from Grants.gov. If problems occur while using Grants.gov, the applicant is advised to (a) print any error message received, and (b) call Grants.gov directly at 800-518-4726 for immediate assistance. Grants.gov hours of operation are Monday-Friday, 7:00 a.m. to 9:00 p.m. Eastern Standard Time (except for Federal holidays).

2. Content and Form of Application Submission

To simplify the proposal writing and evaluation process, the following procedure will be used:

Applicants should initially submit a completed SF-424 (R&R) form with an abbreviated proposal. Abbreviated proposals should:

- Contain a description of the proposed project,
- Include sufficient information to address the evaluation criteria found in this Notice,
- Be no more than five (5) double spaced pages, and
- Be mailed to the address given above in the "Addresses" section.

The abbreviated proposals will be screened to determine whether they meet the requirements outlined in this Notice. Proposals that do not conform to the requirements will not be considered further.

Unsuccessful applicants will be notified in writing. The Program will retain one copy of each unsuccessful application for three years for record keeping purposes. The remaining copies will be destroyed.

Successful applicants (finalists) will be notified in writing and be requested to submit a full proposal. The proposal should:

- Address the evaluation criteria that are listed in this Notice.
- Contain a concise title and a 100-200 word abstract.
- Explain the research project itself, its importance, its relationship to NIST's interest and its feasibility within the time and budget constraints.
- Include a vita.
- List the principal investigator's most recent and relevant publications.
- Contain a budget and detailed budget narrative for each year of the proposal in \$50,000 increments up to three years; a budget form for each year must be included.
- Indicate if supported by other sources of funding and make clear what NIST funds will enable the applicant to achieve that could not be achieved with the other sources of funds.
- Contain a list of all current and pending proposals for similar research, including the amounts requested and the source that was or is considering it.
- Contain completed SF-424, SF-424A, SF-424B, SF-LLL and CD-511.
- Be a maximum total of 10 double-spaced pages, exclusive of the budget sheet and required Standard Forms and Department of Commerce Forms.

Although applicants submitting paper applications are not required to submit more than three copies of the proposal, the normal review process for the Precision Measurement Grants Program utilizes ten (10) copies. Applicants are encouraged to submit sufficient proposal copies for the full review process if they wish all reviewers to receive color, unusually sized (not 8.5" x 11"), or otherwise unusual materials submitted as part of the proposal. Only three copies of the required Standard and Department forms are needed from finalists.

3. Submission Dates and Times:

Abbreviated proposals must be received at the address listed above no later than 5:00 p.m. Eastern Standard Time on February 6, 2009. Proposals received after this deadline will be returned with no further consideration. Finalists will be selected by approximately March 27, 2009 and will be requested to submit full proposals to NIST. All full proposals, paper and electronic, must be received no later than 5:00 p.m. Eastern Daylight Time on May 8, 2009.

4. Intergovernmental Review: Executive Order 12372: Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

5. Funding Restrictions: Not applicable.

e. Application Review Information

1. Criteria:

The evaluation criteria to be used in evaluating the abbreviated application proposals and full proposals are:

1. The importance of the proposed research - Does it have the potential of answering some currently pressing question or of opening up a whole new area of activity?
2. The relationship of the proposed research to NIST's ongoing work - Will it support one of NIST's current efforts to develop a new or improved fundamental measurement method or physical standard, test the basic laws of physics, or provide an improved value for a fundamental constant?
3. The feasibility of the research and the potential impact of the grant - Is it likely that significant progress can be made in a three year time period with the funds and personnel available and that the funding will enable work that would otherwise not be done with existing or potential funding?
4. The qualifications of the applicant - Does the educational and employment background and the quality of the research, based on recent publications, of the applicant indicate that there is a high probability that the proposed research will be carried out successfully?

Each of these factors is given equal weight in the evaluation process.

2. Review and Selection Process:

Eight independent, objective individuals, at least half of whom are NIST employees, and who are knowledgeable about the scientific areas that the program addresses will conduct a technical review of each abbreviated proposal, based on the evaluation criteria described in the Evaluation Criteria section for this program. Each reviewer will evaluate and rank the proposals. The proposals will then be ranked based on the average of the reviewers' rankings. If non-Federal reviewers are used, the reviewers may discuss the proposals with each other, but the ranking will be determined on an individual basis, not as a consensus.

The Chief of the Atomic Physics Division of the Physics Laboratory, the selecting official, will then select approximately four to eight finalists. In selecting finalists, the selecting official will take into consideration the results of the reviewers' evaluations, including rank, and relevance to the Program Description described above. Applicants not selected as finalists will be notified in writing.

Finalists will then be asked in writing to submit full proposals up to ten (10) pages in accordance with the requirements set forth in the Content and Form of Application Submission section of this Notice. The same independent reviewers that reviewed the abbreviated proposals will then evaluate the full proposals based on the same evaluation criteria, and the proposals will be ranked as previously described. In selecting proposals that will be recommended for funding, the same selecting official will take into consideration the results of the reviewers' evaluations, including rank and relevance to the program objectives described in the Funding Opportunity Description section of this Notice.

The final approval of selected applications and award of grants will be made by the NIST Grants Officer based on compliance with application requirements as published in this Notice, compliance with applicable legal and regulatory requirements, compliance with Federal policies that best further the objectives of the Department of Commerce, and whether the recommended applicants appear to be responsible.

Applicants may be asked to modify objectives, work plans, or budgets and provide supplemental information required by the agency prior to award.

The decision of the Grants Officer is final.

3. Anticipated Announcement and Award Dates: Finalists will be selected by approximately March 27, 2009. Awards are expected to be made by September 30, 2009.

f. Award Administration Information

1. Award Notices: Successful finalists will receive a grant award document from the Grants Officer. The document will be mailed via surface mail in triplicate. The recipient should have an authorized official at the organization sign and return two copies to the address listed in the award document. The award document will also include the standard terms and conditions, general terms and conditions (if any), and special award conditions (if any) that are applicable.

2. Administrative and National Policy Requirements: The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements, which are contained in the *Federal Register* Notice of February 11, 2008 (73 F.R. 7696), are applicable to this solicitation. On the form SF-424, the applicant's 9-digit Dun and Bradstreet Data Universal. Block 8 of the SF-424 requires the applicant to supply its Employee Identification Number (EIN) or Taxpayer Identification Number (TIN). Applicants must provide the EIN or TIN of the organization within the applying institution that will be responsible for drawing down funds from the Automated Standard Application for Payment System (ASAP). Applicants who provide incorrect EIN or TIN may experience significant delays in receiving funds.

Collaborations with NIST Employees: All applications should include a description of any work proposed to be performed by an entity other than the applicant, and the cost of such work should ordinarily be included in the budget.

If an applicant proposes collaboration with NIST, the statement of work should include a statement of this intention, a description of the collaboration, and prominently identify the NIST employee(s) involved, if known. Any collaboration by a NIST employee must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the approval of the proposed collaboration. Any unapproved collaboration will be stricken from the proposal prior to the merit review.

Use of NIST Intellectual Property: If the applicant anticipates using any NIST-owned intellectual property to carry out the work proposed, the applicant should identify such intellectual property. This information will be used to ensure that no NIST employee involved in the development of the intellectual property will participate in the review process for that competition. In addition, if the applicant intends to use NIST-owned intellectual property, the applicant must comply with all statutes and regulations governing the licensing of Federal government patents and inventions, described at 35 U.S.C. §§ 200-212, 37 C.F.R. Part 401, 15 C.F.R. § 14.36, and in Section B.21 of the Department of Commerce Pre-Award Notification Requirements, 73 F.R. 7696 (February 11, 2008). Questions about these requirements may be directed to the Office of the Chief Counsel for NIST, 301-975-2803.

Any use of NIST-owned intellectual property by a proposer is at the sole discretion of NIST and will be negotiated on a case-by-case basis if a project is deemed meritorious. The applicant should indicate within the statement of work whether it already has a license to use such intellectual property or whether it intends to seek one.

If any inventions made in whole or in part by a NIST employee arise in the course of an award made pursuant to this notice, the United States government may retain its ownership rights in any such invention. Licensing or other disposition of NIST's rights in such inventions will be determined solely by NIST, and include the possibility of NIST putting the intellectual property into the public domain.

Initial Screening of all Applications: All applications received in response to this announcement will be reviewed to determine whether or not they are complete and responsive to the scope of the stated program objectives. Incomplete or non-responsive applications will not be reviewed for technical merit. The Program will retain one copy of each non-responsive application for three years for record keeping purposes. The remaining copies will be destroyed.

Research Projects Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects: Any proposal that includes research involving human subjects, human tissue, data or recordings involving human subjects must meet the requirements of the Common Rule for the Protection of Human Subjects, codified for the Department of Commerce at 15 C.F.R. Part 27. In addition, any proposal that includes research on these topics must be in compliance with any statutory requirements imposed upon the Department of Health and Human Services (DHHS) and other federal agencies regarding these topics, all regulatory policies and guidance adopted by DHHS, Food and Drug Administration, and

other Federal agencies on these topics, and all Presidential statements of policy on these topics.

NIST will accept the submission of human subjects protocols that have been approved by Institutional Review Boards (IRBs) registered with DHHS and performed by entities possessing a current, valid Federal-wide Assurance (FWA) from DHHS. NIST will not issue a single project assurance (SPA) for any IRB reviewing any human subjects protocol proposed to NIST.

On August 9, 2001, the President announced his decision to allow Federal funds to be used for research on existing human embryonic stem cell lines as long as prior to his announcement (1) the derivation process (which commences with the removal of the inner cell mass from the blastocyst had already been initiated and (2) the embryo from which the stem cell line was derived no longer had the possibility of development as a human being. NIST will follow guidance issued by the National Institutes of Health at <http://ohrp.osophs.dhhs.gov/humansubjects/guidance/stemcell.pdf> for funding such research.

Research Projects Involving Vertebrate Animals: Any proposal that includes research involving vertebrate animals must be in compliance with the National Research Council's "Guide for the Care and Use of Laboratory Animals" which can be obtained from National Academy Press, 2101 Constitution Avenue, NW., Washington, DC 20055. In addition, such proposals must meet the requirements of the Animal Welfare Act (7 U.S.C. § 2131 et seq.), 9 C.F.R. Parts 1, 2, and 3, and if appropriate, 21 C.F.R. Part 58. These regulations do not apply to proposed research using pre-existing images of animals or to research plans that do not include live animals that are being cared for, euthanized, or used by the project participants to accomplish research goals, teaching, or testing. These regulations also do not apply to obtaining animal materials from commercial processors of animal products or to animal cell lines or tissues from tissue banks.

Limitation of Liability: "Funding for the programs listed in this notice is contingent upon the availability of FY 2009 appropriations. NIST issues this notice subject to the appropriations made available under the current continuing resolution, H.R. 2638, "Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009," Public Law 110-329. NIST anticipates making awards for the programs listed in this notice provided that funding for the programs is continued beyond March 6, 2009, the expiration of the current continuing resolution. In no event will NIST or the Department of Commerce be responsible for proposal preparation costs if the NIST programs fail to receive funding or are cancelled because of Department of Commerce or NIST priorities. Publication of this notice does not oblige NIST or the Department of Commerce to award any specific project or to obligate any available funds."

Collaborations making use of Federal Facilities: All applications should include a description of any work proposed to be performed using Federal Facilities.

If an applicant proposes use of NIST facilities, the statement of work should include a statement of this intention and a description of the facilities. Any use of NIST facilities must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the availability of the facilities and approval of the proposed usage. Any unapproved facility use will be stricken from the proposal prior to the merit review. Examples of some facilities that may be available for collaborations are listed on the NIST Technology Services web site, <http://ts.nist.gov/> .

3. Reporting: Successful finalists will be required to submit, on a semi-annual basis for the periods ending March 31 and September 30 of each year, a technical progress report and a SF-269, Financial Status Report. From time to time, and in accordance with the Uniform Administrative Requirements and other terms and conditions governing the award, the recipient may need to submit property and patent reports.

g. Agency Contact(s): Technical questions should be addressed to Dr. Peter J. Mohr at the address listed in the Addresses section above, or at Tel: (301) 975-3217; E-mail: mohr@nist.gov. Grants Administration questions should be addressed to: Grants and Agreements Management Division; National Institute of Standards and Technology; 100 Bureau Drive, Stop 1650; Gaithersburg, MD 20899-1650; Tel: (301) 975-6328. For assistance with using Grants.gov contact support@grants.gov.