

# **List of Current Federal Grant Opportunities**

**Prepared for the**

**Federation of Earth Science Information  
Partners Winter Meeting**

**January 2011**

**The following listing of opportunities was compiled from listings on individual agency websites and from Grants.gov. The opportunities are organized by agency and due date with soonest first. This list represents our best attempt to give you a current list of solicitations from agencies committed to supporting Earth science.**

**We are interested your feedback on this so please forward any comments or other grant opportunities of interest to: [erinrobinson@esipfed.org](mailto:erinrobinson@esipfed.org)**

## Table of Contents

<b>DEPARTMENT OF ENERGY</b>		<b>4</b>
SciDAC: Earth System Model Development	4	
FY 2011 Continuation of Solicitation for the Office of Science Financial Assistance Program	5	
<b>NATIONAL AERONAUTICS AND SPACE ADMINISTRATION</b>		<b>6</b>
ROSES 2010: Atmospheric Composition: Southeast Asia Composition, Cloud, Climate Coupling Regional Study (A.13)	6	
ROSES 2010: Supplemental Outreach Awards for ROSES Investigators (E.5)	7	
ROSES 2010: Supplemental Education Awards for ROSES Investigators (E.6)	8	
<b>NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION</b>		<b>10</b>
A Cooperative Institute to Support NOAA's N.W. Research Facilities in the Area of Marine Resources	10	
A Cooperative Institute to Improve Mesoscale and Stormscale High Impact Weather Forecasts, Watches, And Warnings Through The Use Of, And Enhancement Of, Weather Radar	10	
2012 National Sea Grant College Program Dean John A. Knauss Marine Policy Fellowship	11	
NOAA FY 2010-FY2011 Broad Agency Announcement	12	
<b>NATIONAL SCIENCE FOUNDATION</b>		<b>13</b>
Discovery Research K-12	13	
Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics	13	
Cyber-Enabled Discovery and Innovation (CDI)	14	
Foundations of Data and Visual Analytics	15	
Strategic Technologies for Cyberinfrastructure Program (STCI)	16	
Frontiers in Earth System Dynamics	18	
Cyberinfrastructure Training, Education, Advancement, and Mentoring for Our 21st Century Workforce (CI-TEAM)	18	
Research Coordination Networks (RCN)	20	
CISE Computing Research Infrastructure	20	
Information and Intelligent Systems (IIS): Core Programs	21	
Cooperative Studies Of The Earth's Deep Interior	23	
EarthScope	24	
Geoscience Education	24	
Geospace Environment Modeling	25	
Partnerships for Innovation	26	
<b>UNITED STATES GEOLOGICAL SURVEY</b>		<b>27</b>
2011 National Spatial Data Infrastructure	27	

# DEPARTMENT OF ENERGY

## SciDAC: Earth System Model Development

**Funding Opportunity Number:** DE-FOA-0000452

**Due Date for Applications:** Mar 21, 2011

**Expected Total Number of Awards:** 10

**Estimated Total Program Funding:** \$3,000,000

**Award Ceiling:** \$800,000

**Award Floor:** \$250,000

**URL:** <http://www.grants.gov/search/search.do?mode=VIEW&opId=60735>

### Overview:

The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications for Earth System Modeling (ESM) projects as part of the SciDAC (Scientific Discovery through Advanced Computing) program with DOE's Office of Advanced Scientific Computing Research (ASCR). The SciDAC program fosters integration of high performance computing and computational science throughout all mission areas within SC. This opportunity addresses collaborative research to enhance climate model resolution, physical representation of processes, validation, and quantification of uncertainty. All projects should be relevant to the objectives of the Earth System Modeling program (<http://www.science.doe.gov/ober/CESD/esm.html>) within BER's Climate and Environmental Sciences Division (CESD). The relevant temporal scales of interest to the program range from decades to centuries. In order to advance the simulation and predictive capabilities of state-of-science climate models, new approaches are needed to increase the spatial resolution, develop and incorporate refinements to physical process representation, and enhance quantification of uncertainty and model validation. National investments in computer science and petascale computing in recent decades have enabled DOE science to be at the forefront of many areas of the physical sciences. DOE's SciDAC program (<http://www.science.doe.gov/ascr/Research/SciDAC.html>) is intended to couple these investments in computer science and leadership class computing with scientists from across the major program offices within DOE's Office of Science. This FOA is to facilitate direct collaboration between computational scientists and climate model developers to enable breakthroughs in climate model simulation and prediction. The BER ESM program aims to advance all aspects of climate science that leads to improved predictability of the earth climate for higher resolution and with reduced uncertainty. The first goal is to improve the accuracy and skill of climate models by implementing enhanced ESM components, such as improved parameterizations for clouds, aerosols and chemistry, carbon cycle modeling, land surface processes, and sea and land ice representation. Development of these model components are expected to be accompanied by comparison with scale-appropriate measurements. A second goal is to understand the principle causes and effects of climate change, including potential abrupt changes in climate. Further information on the ESM program priorities within CESD may be found at: <http://www.sc.doe.gov/ober/Climate%20Strategic%20Plan.pdf>. High risk, high pay-off research ideas that explore innovative new directions to advance the understanding, simulation and prediction of climate change are encouraged. Applications should clearly describe how the proposed ideas have the potential to lead to breakthroughs in earth system modeling. Availability of advanced computer resources at DOE facilities provides unique opportunities to enhance earth system model component development. CESD will continue to support climate models based on definitive theoretical foundations and improved computational methods that run efficiently on current petascale and future high performance supercomputers.

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**FY 2011 Continuation of Solicitation for the Office of Science Financial Assistance Program**

**Funding Opportunity Number:** DE-FOA-0000411

**Due Date for Applications:** Sep 30, 2011 This announcement will remain open until {September 30, 2010} or until replaced by a successor announcement. Applications may be submitted any time during this period.

**Expected Total Number of Awards:** unknown

**Estimated Total Program Funding:** \$800,000,000

**Award Ceiling:** Unknown

**Award Floor:** Unknown

**URL:** <http://www.grants.gov/search/search.do?mode=VIEW&opId=58238>

**Overview:**

FY 2011 Continuation of Solicitation for the Office of Science Financial Assistance Program The full text of the Funding Opportunity Announcement (FOA) is located on FedConnect. Instructions for completing the Grant Application Package are contained in the full text of the FOA which can be obtained at:

<https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0000411&agency=DOE>

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# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

## ROSES 2010: Atmospheric Composition: Southeast Asia Composition, Cloud, Climate Coupling Regional Study (A.13)

**Funding Opportunity Number:** NNH10ZDA001N-SEAC4RS

**Due Date for Applications:** Feb 1, 2011

**Expected Total Number of Awards:** ~45

**Estimated Total Program Funding:** Unknown

**Expected Annual Program Budget:** ~\$9,000,000

**URL:**

<http://nspires.nasaprs.com/external/viewrepositorydocument/cmdocumentid=221170/A.13%20SEAC4RS%20Amend%2021.pdf>

**Overview:**

The Atmospheric Composition research programs are soliciting proposals for participation in two airborne campaigns to be conducted in 2012 to investigate atmospheric processes related to deep convection, chemistry/photochemistry, aerosols and clouds in mid-latitude and tropical environments. Multiple comprehensively instrumented aircraft are required to accomplish this research. NASA and the National Science Foundation plan to collaborate to conduct two synergistic campaigns designed to sample the atmosphere in two very different convective environments: summer mid-latitude continental North America and fall tropical Southeast Asia. Through this call, the Upper Atmosphere Research Program, the Radiation Sciences Program, the Tropospheric Chemistry Program, and the Atmospheric Composition Modeling and Analysis Program seek instrumentation teams and data analysis teams for participation in these studies.

**Contacts:**

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## **ROSES 2010: Supplemental Outreach Awards for ROSES Investigators (E.5)**

**Funding Opportunity Number:** NNH10ZDA001N-OUTRCH

**Due Date for Applications:** February 9, 2011 (NOI); March 2, 2011 (Full Proposal)

**Expected Total Number of Awards:** ~20

**Estimated Total Program Funding:** Unknown

**Expected Annual Program Budget:** ~\$200,000

**URL:**

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={DB4F8F6B-F2E2-EF81-908B-E9DA930FF19F}&path=open>

**Overview:**

Outreach is an essential aspect of the SMD program. It directly connects to many aspects of NASA Public Affairs and NASA education efforts. It often provides an inspirational spark for participants to seek out education opportunities. Outreach can be directed at any audience, including students, teachers, citizen scientists, and the general public. The SMD Outreach Goal is to stimulate interest in science, engineering, and technology relevant to NASA SMD. SMD Supplemental Outreach awards are provided to support the SMD Outreach goal. SMD-funded researchers can design an outreach effort that capitalizes upon their own talents, interests, and scientific expertise. By adding an Outreach component to their research investigation, they can engage the public in the excitement of NASA's scientific exploration of our home planet, the solar system, and the rest of the universe through stimulating and informative activities that reach a broad and varied audience.

**Contacts:**

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Washington, DC 20546-0001

Telephone: (202) 358-1531 Email: [larry.p.cooper@nasa.gov](mailto:larry.p.cooper@nasa.gov)

## **ROSES 2010: Supplemental Education Awards for ROSES Investigators (E.6)**

**Funding Opportunity Number:** NNH10ZDA001N-EDUC

**Due Date for Applications:** February 9, 2011 (NOI); March 2, 2011 (Full Proposal)

**Expected Total Number of Awards:** ~20

**Estimated Total Program Funding:** Unknown

**Expected Annual Program Budget:** ~\$300,000

**URL:**

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={B1E77D67-0988-7FA3-CF3E-FA0A46861783}&path=open>

**Overview:**

This solicitation element is for project activities that utilize SMD content and contribute to achieving SMD Education objectives. The scope of supplemental Education awards includes all aspects of elementary/secondary and informal education and limited aspects of higher education. A higher education project activity may address undergraduate programs to enhance the science literacy of nonscientists and future K-12 teachers; increase the participation of minorities and other underutilized groups (e.g., women) in science, technology, engineering, and mathematics; or offer expanded opportunities for engagement of undergraduates in group projects that model SMD mission experiences in the application of scientific, engineering, or technical expertise. Efforts promoting participation of underrepresented groups in Earth and space science studies at all levels of education and strengthening such learning in minority serving institutions are encouraged. Of particular interest are efforts that provide K-12 and community college educators with research-intensive experiences on NASA Earth or Space Science projects.

**Contacts:**

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## **NASA Space Technology Research Fellowships (NSTRF) – Fall 2011 Fellowship Start**

**Funding Opportunity Number:** NSTRF11

**Due Date for Applications:** February 23, 2011 (Full Proposal)

**Expected Total Number of Awards:** Unknown

**Estimated Total Program Funding:** Unknown

**Expected Annual Program Budget:** Unknown

**URL:**

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={587D1D6C-F41F-6F90-F74C-73CEA74E4CA6}&path=open%20%3Chttp://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={587D1D6C-F41F-6F90-F74C-73CEA74E4CA6}&path=open>

**Overview:**

OCT is interested in attracting graduate students that are committed to developing disruptive technologies for the aerospace sector and to being part of NASA's technological future by working on [high-priority technologies](#) to sustainably explore space, and who are interested in pursuing [NASA's Grand Challenges](#).



Selected candidates will perform graduate student research both on their respective campuses and at NASA Centers and, in the future, also at nonprofit U.S. Research and Development (R&D) laboratories. Subsequent calls will provide a list of all labs with which NASA has negotiated agreements. In addition to his or her academic advisor, each student will be matched with a technically relevant and community engaged researcher who will serve as the student's professional mentor. Through this experience, students will advance their STEM education, gain relevant research experience and learn the research process. Awards resulting from this competitive selection will be made in the form of training grants to the respective universities. If the student is planning to embark on a new degree program (e.g., M.S. or Ph.D.) at an academic institution different from his/her current academic institution, he/she is encouraged to work with faculty at prospective universities in assembling and submitting packages to the fellowship call.

**Contacts:**

NSTRF Point of Contact, Claudia Meyer, at [hq-nstrf-call@mail.nasa.gov](mailto:hq-nstrf-call@mail.nasa.gov)

# NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION

## A Cooperative Institute to Support NOAA's N.W. Research Facilities in the Area of Marine Resources

**Funding Opportunity Number:** NOAA-OAR-CIPO-2011-2002774

**Due Date for Applications:** February 11, 2011

**Expected Total Number of Awards:** 1

**Estimated Total Program Funding:** \$7,000,000

**Award Ceiling:** Unknown

**Award Floor:** Unknown

**URL:** <http://www.grants.gov/search/search.do?mode=VIEW&oppld=58793>

### Overview:

The NOAA Office of Oceanic and Atmospheric Research (OAR) and the National Marine Fisheries Service (NMFS) invite applications for the establishment of a cooperative institute (CI) to support NOAA research facilities in the northwest U.S. in the area of marine resources that will focus on the themes of: (1) seafloor processes, (2) marine mammal acoustics, (3) marine ecosystems, and (4) protection and restoration of marine resources. The CI will be established at a research institution not only having outstanding graduate degree programs in NOAA-related sciences, but also located within a commuting distance that allows direct interactions with CI and NOAA scientists at NOAA's Pacific Marine Environmental Laboratory, Northwest Fisheries Science Center, and Alaska Fisheries Science Center offices in Newport, Oregon, on a regular basis. The CI will provide significant coordination of resources among all non-governmental partners and will promote the involvement of students and post-doctoral scientists in NOAA-funded research. If the CI is comprised of multiple member institutions, only the lead institution applying for the award and where the CI will be established must satisfy the commuting distance requirement. This announcement provides requirements for the proposed CI and includes details for the technical program, evaluation criteria, and competitive selection procedures. Applicants should review the CI Interim Handbook prior to preparing a proposal for this announcement (available at [www.nrc.noaa.gov/ci](http://www.nrc.noaa.gov/ci)).

### Contacts:

Steve Drescher, Policy Advisor

## A Cooperative Institute to Improve Mesoscale and Stormscale High Impact Weather Forecasts, Watches, And Warnings Through The Use Of, And Enhancement Of, Weather Radar

**Funding Opportunity Number:** NOAA-OAR-CIPO-2011-2002772

**Due Date for Applications:** February 11, 2011

**Expected Total Number of Awards:** 1

**Estimated Total Program Funding:** \$15,000,000

**Award Ceiling:** Unknown

**Award Floor:** Unknown

**URL:** <http://www.grants.gov/search/search.do?mode=VIEW&oppld=58792>

**Overview:**

The NOAA Office of Oceanic and Atmospheric Research invites applications for the establishment of a cooperative institute (CI) to improve mesoscale and stormscale high impact weather forecasts, watches, and warnings through the use of, and enhancement of, weather radar. The CI will focus on the themes of: (1) weather radar research and development, (2) stormscale and mesoscale modeling research and development, (3) forecast improvements research and development, (4) impacts of climate change related to extreme weather events, and (5) social and socioeconomic impacts of high impact weather systems. The CI will be established at a research institution not only having outstanding graduate degree programs in NOAA-related sciences, but also located within a commuting distance to NOAA's facilities in Norman, Oklahoma that provides for direct interactions on a regular basis. The CI will provide significant coordination of resources among all non-governmental partners and will promote the involvement of students and post-doctoral scientists in NOAA-funded research. If the CI is comprised of multiple member institutions, only the lead institution applying for the award and where the CI will be established must satisfy the commuting distance requirement. This announcement provides requirements for the proposed CI and includes details for the technical program, evaluation criteria, and competitive selection procedures. Applicants should review the CI Interim Handbook prior to preparing a proposal for this announcement (available at [www.nrc.noaa.gov/ci](http://www.nrc.noaa.gov/ci)).

**Contacts:**

Steve Drescher, Policy Advisor

## **2012 National Sea Grant College Program Dean John A. Knauss Marine Policy Fellowship**

**Funding Opportunity Number:** NOAA-OAR-SG-2012-2002440

**Due Date for Applications:** April 1, 2011

**Expected Total Number of Awards:** Unknown

**Estimated Total Program Funding:** Unknown

**Award Ceiling:** Unknown

**Award Floor:** Unknown

**URL:** <http://www.grants.gov/search/search.do?mode=VIEW&opId=56012>

**Overview:**

This notice announces that applications may be submitted for the National Sea Grant College Program Dean John A. Knauss Marine Policy Fellowship (Sea Grant Knauss Fellowship Program). The Sea Grant Knauss Fellowship Program is a program initiated by the National Oceanic and Atmospheric Administration (NOAA) National Sea Grant College Program, in fulfilling its broad educational responsibilities and legislative mandate of the Sea Grant Act, to provide an educational experience in the policies and processes of the Legislative and Executive Branches of the Government to graduate students in marine and aquatic-related fields. The Sea Grant Knauss Fellowship Program meets NOAA's Mission goal of "Protect, Restore and Manage the Use of Coastal and Ocean Resources Through Ecosystem-Based Management."

**Contacts:**

Steve Drescher, Policy Advisor

## NOAA FY 2010-FY2011 Broad Agency Announcement

**Funding Opportunity Number:** NOAA-NFA-NFAPO-2010-2002272

**Due Date for Applications:** September 30, 2011

**Expected Total Number of Awards:** Unknown

**Estimated Total Program Funding:** Unknown

**Award Ceiling:** Unknown

**Award Floor:** Unknown

**URL:** <http://www.grants.gov/search/search.do?mode=VIEW&oppld=51101>

### **Overview:**

The purpose of this notice is to request proposals for special projects and programs associated with the Agency's strategic plan and mission goals, as well as to provide the general public with information and guidelines on how NOAA will select proposals and administer discretionary Federal assistance under this BAA. This BAA is a mechanism to encourage research, education and outreach, innovative projects, or sponsorships that are not addressed through our competitive discretionary programs. It is not a mechanism for awarding congressionally directed funds. Funding for potential projects in this notice is contingent upon the availability of Fiscal Year 2010, Fiscal Year 2011 and Fiscal Year 2012 appropriations. Applicants are hereby given notice that funds have not yet been appropriated for any proposed activities in this notice. Publication of this announcement does not oblige NOAA to review an application beyond an initial administrative review, or to award any specific project, or to obligate any available funds.

### **Contacts:**

Steve Drescher, Policy Advisor

# NATIONAL SCIENCE FOUNDATION

## Discovery Research K-12

**Funding Opportunity Number:** 08-502

**Due Date for Applications:** January 10, 2011

**Expected Total Number of Awards:** 46-66

**Estimated Total Program Funding:** \$50,000,000

**Award Ceiling:** depends on type of submission (\$100,000-\$4,000,000)

**Award Floor:** Unknown

**URL:** <http://www.nsf.gov/pubs/2008/nsf08502/nsf08502.pdf>

### Overview:

The Discovery Research K-12 (DR-K12) program seeks to enable significant advances in K-12 student and teacher learning of the STEM disciplines through research about, and development and implementation of, innovative resources, models, and technologies for use by students, teachers, and policy makers. Activities funded under this solicitation begin with a research question or hypothesis about K-12 STEM learning or teaching; develop, adapt, or study innovative resources, models, or technologies; and demonstrate if, how, for whom, and why their implementation affects learning. This solicitation calls for proposals that are responsive to either the Contextual Challenges strand or the Frontier Challenges strand. The former invites proposals that address the more immediate and pressing challenges facing K-12 STEM education at the national level. The latter anticipates opportunities for the future and supports initiatives on the frontiers of knowledge which challenge existing assumptions about learning and teaching within or across STEM fields, envision needs of learners in 10 to 15 years, and consider new and innovative ways to reach learners. Within these strands, the program calls for full research and development projects, exploratory projects, and synthesis projects. A DR-K12 Resource Network will be funded to support these efforts in FY 2008. In addition, conferences related to the mission of the DR-K12 program are also supported.

### Contacts:

Telephone: (703) 292-8620, Email: [DRLDRK12@nsf.gov](mailto:DRLDRK12@nsf.gov)

## Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics

**Funding Opportunity Number:** 10-544

**Due Date for Applications:** Jan 14, 2011 Full Proposal Deadline Date: January 14, 2011 For Type 2 and 3 proposals and for TUES Central Resource Project proposals. However, TUES Central Resource Project proposals for small focused workshops may be submitted at any time after consulting with a program officer. Full Proposal Deadline Date: May 26, 2011 For Type 1 proposals from submitting organizations located in states or territories beginning with A through M. Full Proposal Deadline Date: May 27, 2011 For Type 1 proposals from submitting organizations located in states or territories beginning with N through W.

**Expected Total Number of Awards:** 35

**Estimated Total Program Funding:** \$35,800,000

**Award Ceiling:** \$5,000,000

**Award Floor:** \$200,000

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf10544](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10544)

**Overview:**

The Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) program seeks to improve the quality of science, technology, engineering, and mathematics (STEM) education for all undergraduate students. This solicitation especially encourages projects that have the potential to transform undergraduate STEM education, for example, by bringing about widespread adoption of classroom practices that embody understanding of how students learn most effectively. Thus transferability and dissemination are critical aspects for projects developing instructional materials and methods and should be considered throughout the project's lifetime. More advanced projects should involve efforts to facilitate adaptation at other sites. The program supports efforts to create, adapt, and disseminate new learning materials and teaching strategies to reflect advances both in STEM disciplines and in what is known about teaching and learning.?? It funds projects that develop faculty expertise, implement educational innovations, assess learning and evaluate innovations, prepare K-12 teachers, or conduct research on STEM teaching and learning. It also supports projects that further the work of the program itself, for example, synthesis and dissemination of findings across the program. The program supports projects representing different stages of development, ranging from small, exploratory investigations to large, comprehensive projects.

**Contacts:**

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## **Cyber-Enabled Discovery and Innovation (CDI)**

**Funding Opportunity Number:** 11-502

**Due Date for Applications:** January 19, 2011

**Expected Total Number of Awards:** 30

**Estimated Total Program Funding:** \$36,000,000

**Award Ceiling:** depends on type of submission (\$100,000-\$4,000,000)

**Award Floor:** Unknown

**URL:** <http://www.nsf.gov/pubs/2011/nsf11502/nsf11502.htm>

**Overview:**

Cyber-Enabled Discovery and Innovation (CDI) is NSF's bold five-year initiative to create *revolutionary* science and engineering research outcomes made possible by innovations and advances in computational thinking. Computational thinking is defined comprehensively to encompass computational concepts, methods, models, algorithms, and tools. Applied in challenging science and engineering research and education contexts, computational thinking promises a profound impact on the Nation's ability to

generate and apply new knowledge. Collectively, CDI research outcomes are expected to produce paradigm shifts in our understanding of a wide range of science and engineering phenomena and socio-technical innovations that create new wealth and enhance the national quality of life.

CDI seeks ambitious, transformative, multidisciplinary research proposals within or across the following three thematic areas:

- **From Data to Knowledge:** *enhancing human cognition and generating new knowledge from a wealth of heterogeneous digital data;*
- **Understanding Complexity in Natural, Built, and Social Systems:** *deriving fundamental insights on systems comprising multiple interacting elements;* and
- **Virtual Organizations:** *enhancing discovery and innovation by bringing people and resources together across institutional, geographical and cultural boundaries.*

**Contacts:**

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## Foundations of Data and Visual Analytics

**Funding Opportunity Number:** 09-525

**Due Date for Applications:** January 20, 2011. Third Wednesday in January, annually

**Expected Total Number of Awards:** 5

**Estimated Total Program Funding:** \$1,725,000

**Award Ceiling:** \$500,000

**Award Floor:** \$300,000

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf09525](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf09525)

**Overview:**

Individuals working in areas as diverse as science, engineering, finance, medicine, and national security all face the challenge of synthesizing information and deriving insight from massive, dynamic, ambiguous and possibly conflicting digital data. The goal of collecting and examining these data sets is not to merely acquire information, but to derive increased understanding from them and to facilitate effective decision-making. To capitalize on the opportunities provided by these data sets, research in Data and Visual Analytics seeks to facilitate analytical reasoning through the use of interactive visual interfaces. To be successful, this research must extend beyond traditional scientific and information visualization to include statistics, mathematics, knowledge representation, management and discovery technologies, cognitive and perceptual sciences, decision sciences, and more. With this solicitation, the National Science Foundation (NSF) and the Department of Homeland Security (DHS) invite research proposals whose outcomes will enable data stakeholders to detect the expected and discover the unexpected in massive data sets. Research outcomes will be applicable across broad application areas, establishing a solid scientific foundation for visual analytics systems of the future. Proposals should focus on creating fundamental research advances that will be widely applicable across scientific, engineering, commercial, and governmental domains that utilize visualization and analytics to gain insight and derive knowledge from massive, often streaming, dynamic, ambiguous and possibly conflicting, data sets. Research activities proposed should emphasize novel data transformations, while also demonstrating research relevance to visual analytics systems by including a research

component in areas such as, but not limited to, visualization, human-computer interaction, and cognitive psychology.

**Contacts:**

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**Strategic Technologies for Cyberinfrastructure Program (STCI)**

**Funding Opportunity Number:** NSF PD-06-7231

**Due Date for Applications:** First Thursday in February and August, Annually

**Expected Total Number of Awards:** 7

**Estimated Total Program Funding:** \$1,500,000

**Award Ceiling:** \$1,500,000

**Award Floor:** \$50,000

**URL:** [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=500066](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=500066)

**Overview:**

The primary purpose of the Strategic Technologies for Cyberinfrastructure Program (STCI) is to support work leading to the development and/or demonstration of innovative cyberinfrastructure services for science and engineering research and education that fill gaps left by more targeted funding opportunities. In addition, it will consider highly innovative cyberinfrastructure education, outreach and training proposals that lie outside the scope of targeted solicitations. The National Science Foundation provides a number of targeted funding opportunities for the development of cyberinfrastructure, for the provision of cyberinfrastructure services, and for related education, outreach and training. However, cyberinfrastructure technology and training are broad continua. It is anticipated that, at any given time, there will be ideas that do not map neatly onto the extant portfolio of cyberinfrastructure solicitations yet have a high potential impact on research and education. Accordingly, the Strategic Technologies for Cyberinfrastructure program will accept proposals for cyberinfrastructure development, demonstration, education, outreach and training activities that are not aligned with the specific goals of other existing cyberinfrastructure funding opportunities and which have the potential to transform multiple areas of research or education. Projects appropriate for this program should: Be activities that include a demonstration of the potential impact on science or engineering research or education; Generate outcomes not currently under development elsewhere; Meet a clearly described cyberinfrastructure need not met elsewhere; Generate outcomes that will be of interest to a range of science and engineering communities. Investigators interested in submitting proposals with large budgets (roughly \$500,000 per year or larger) are encouraged to develop strong support from within the science and engineering community prior to submitting a proposal and to document this support within the proposal; for example, in the form of references to workshop reports, reports from the National Academies of Science or Engineering, or other reports based on broad community input, on the topic proposed. Proposals should include a clear and



compelling description of why the proposed work has the potential to significantly advance research or education capabilities in multiple areas of science and engineering. Proposals should also provide a convincing explanation of why the project is not suitable for other NSF programs or solicitations. Before developing a proposal intended for this Program, investigators are encouraged to discuss their ideas with program officers associated with the Program to check that there is no targeted solicitation in development for which the project would be a better fit. Proposals for workshops, symposia and Small Grants for Exploratory Research clearly related to the scope of the Program described above, may be submitted. For general information about how to submit such proposals, please see the Grant Proposal Guide.

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### **Science of Learning Centers (SLC)**

**Funding Opportunity Number:** NSF 07-7278  
**Due Date for Applications:** First Monday in February, Annually  
**Expected Total Number of Awards:** 15  
**Estimated Total Program Funding:** \$3,000,000  
**Award Ceiling:** \$250,000  
**Award Floor:**

**URL:** [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5567](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5567)

**Overview:**

The Science of Learning Centers program (SLC) offers awards for large-scale, long-term Centers that create the intellectual, organizational and physical infrastructure needed for the long-term advancement of Science of Learning research. It supports research that harnesses and integrates knowledge across multiple disciplines to create a common groundwork of conceptualization, experimentation and explanation that anchor new lines of thinking and inquiry towards a deeper understanding of learning. The goals of the Science of Learning Centers Program are to advance the frontiers of all the sciences of learning through integrated research; to connect the research to specific scientific, technological, educational, and workforce challenges; to enable research communities to capitalize on new opportunities and discoveries; and to respond to new challenges. The SLC Program construes learning broadly, including that of animals, humans and machines. The program is open to many possible approaches and topics that can be brought to examine what learning is, how it is affected, how it works at different levels, how biologically-derived learning principles can inform artificial systems and vice versa. The Program places high value on creativity, integration of theoretical and empirical work, innovative models of research and research transfer, and inventive uses of technology. Science of Learning Centers are built around a unifying research focus and incorporate a diverse, multidisciplinary environment involving appropriate partnerships with academia, industry, all levels of education, and other public and private entities. Catalyst awards were made during the initial years of the program. Catalyst awards are designed to enable partnership-building and research activities that facilitate interdisciplinary approaches to questions that require multiple areas of expertise. There are currently no SLC Centers or Catalyst competitions. However, the Science of Learning Centers Program is currently accepting proposals for Workshops, Early-concept Grants for Exploratory Research (EAGER), Rapid Response Grants (RAPID), and Supplements to NSF awards (including those funded by other programs). Please see the submission guidelines for these special types of grants under the RELATED URL section of this

program description and contact the SLC program officers for assistance and advice prior to proposal submission.

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## **Frontiers in Earth System Dynamics**

**Funding Opportunity Number:** 10-577

**Due Date for Applications:** Mar 15, 2011 Preliminary Proposal Due Date(s) (required) (due by 5 p.m. proposer's local time): October 01, 2010; Full Proposal Deadline(s): March 15, 2011

**Expected Total Number of Awards:** 10

**Estimated Total Program Funding:** \$28,000,000

**Award Ceiling:**

**Award Floor:**

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf10577](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10577)

**Overview:**

The Earth is often characterized as “dynamic”; because its systems are variable over space and time, and they can respond rapidly to multiple perturbations. The goals of the Frontiers in Earth-System Dynamics (FESD) program are to: (1) foster an inter-disciplinary and multi-scale understanding of the interplay among and within the various sub-systems of the Earth, (2) catalyze research in areas poised for a major advance, (3) improve data resolution and modeling capabilities to more realistically simulate complex processes and forecast disruptive or threshold events, and (4) improve knowledge of the resilience of the Earth and its subsystems.

**Contacts:**

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## **Cyberinfrastructure Training, Education, Advancement, and Mentoring for Our 21st Century Workforce (CI-TEAM)**

**Funding Opportunity Number:** 11-515

**Due Date for Applications:** Mar 16, 2011

**Expected Total Number of Awards:** 9-12

**Estimated Total Program Funding:** \$5,000,000

**Award Ceiling:** \$1,000,000

**Award Floor:**

URL: <http://www.nsf.gov/pubs/2011/nsf11515/nsf11515.htm>

**Overview:**

New information, communication, and computational technologies have had profound impacts on the practice of science (in this solicitation, the term science includes the natural, mathematical, computing, and social sciences), engineering, and education. This includes the means by which citizens of all ages use science and engineering to enhance professional and private lives. The systems, tools, and services emerging from these new technologies are linked to create a comprehensive cyberinfrastructure that is enabling individuals, groups, and organizations to advance research and education in ways that revolutionize who can participate, what they can do, and how they do it. Sustaining this revolution across all areas of science, engineering, and education requires the formation of a citizenry and workforce with the knowledge and skills needed to design and deploy as well as adopt and apply these cyber-based systems, tools and services over the long-term. The opportunity for such preparation should be available at all stages of formal and informal education (K-16 and lifelong), training and professional development, and must be extended to all individuals and communities.

The CI-TEAM program supports projects that integrate science and engineering research and education activities that range from local activities to global-scale efforts, as appropriate, to promote, leverage and utilize cyberinfrastructure systems, tools and services.

Collectively, the CI-TEAM awards will:

- Increase the numbers of scientists, engineers, educators, and/or students prepared to design, develop, adopt and deploy cyber-based tools and environments for computational science and engineering research and learning, both formal and informal. This is to include individuals who are otherwise well prepared in the STEM disciplines.
- Produce curricular and pedagogical materials, learning technologies, and institutional models for preparing the cyberinfrastructure workforce that are broadly adaptable and/or adoptable, and publish related outcomes that inform others of promising educational approaches.
- Increase and broaden the participation of diverse groups of people and organizations as both creators and users of cyberinfrastructure for research and education. Currently underrepresented groups include women, those in underserved rural regions of the country, those who would be the first in their family to graduate from college, and minorities including those associated with Historically Black Colleges and Universities (HBCUs) and other Minority Serving Institutions (MSIs) and communities.

This solicitation seeks three types of project proposals, all aimed at the preparation of a diverse, cyberinfrastructure-savvy science and engineering workforce:

- Demonstration Projects are exploratory in nature and may be somewhat limited in scope and scale. Demonstration Projects have the potential to serve as exemplars for effective larger-scale implementation and diffusion activities in the future.
- Implementation Projects are generally larger in scope or scale and draw on prior experience with the activities or the teams proposed.
- Diffusion Projects are expected to inform and engage broad national and/or international audiences to build upon educational research and project outcomes to deploy promising educational strategies through cyberinfrastructure resources, models, and/or technologies.

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### **Research Coordination Networks (RCN)**

**Funding Opportunity Number:** 10-566  
**Due Date for Applications:** 1st Mon in July, Annually  
**Expected Total Number of Awards:** 35  
**Estimated Total Program Funding:** \$17,500,000  
**Award Ceiling:** \$500,000  
**Award Floor:** \$50,000

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf10566](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10566)

#### **Overview:**

The goal of this program is to advance a field or create new directions in research or education. Innovative ideas for implementing novel networking strategies are especially encouraged. Groups of investigators will be supported to communicate and coordinate their research, training and educational activities across disciplinary, organizational, geographic and international boundaries. Proposed networking activities directed to the general RCN program should focus on a theme to give coherence to the collaboration, such as a broad research question or particular technologies or approaches. The general RCN program will provide review for proposals to participating core programs and directorates listed in the solicitation, excepting Mathematical & Physical Sciences. Proposals involving mathematical and physical scientists will be accepted under the targeted physical/life science interface track described below. Additional targeted tracks within the RCN programs are intended to foster linkages across selected directorates. RCN-UBE: The Undergraduate Biology Education track could focus on any topic likely to lead to improved participation, learning, or assessment in undergraduate biology curricula. RCN-PLS: The physical/life science interface track focuses on topics at the interface of the biological and either the mathematical or physical sciences.

#### **Contacts:**

RCN Contacts available at [http://www.nsf.gov/bio/ef/rcn\\_contacts.htm](http://www.nsf.gov/bio/ef/rcn_contacts.htm)

### **CISE Computing Research Infrastructure**

**Funding Opportunity Number:** 08-570  
**Due Date for Applications:** First Wednesday in August, Annually  
**Expected Total Number of Awards:** 54  
**Estimated Total Program Funding:** \$18,000,000  
**Award Ceiling:** \$4,000,000  
**Award Floor:** \$50,000

**URL:** [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=12810](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12810)

#### **Overview:**

The CISE Computing Research Infrastructure (CRI) program drives discovery and learning in the computing disciplines by supporting the creation, enhancement and operation of world-class computing research infrastructure. Further, through the CRI program CISE seeks to ensure that individuals from a diverse range of academic institutions, including minority-serving and predominantly undergraduate institutions, have access to such infrastructure. The CRI program supports two classes of awards:

Institutional Infrastructure awards support either the creation of new computing research infrastructure or the enhancement of existing computing research infrastructure to enable world-class research and education opportunities at the awardee and collaborating institutions. Community Infrastructure awards support the planning for computing research infrastructure, or the creation of new computing infrastructure, or the enhancement of existing computing research infrastructure to enable world-class research and education opportunities for broadly-based communities of researchers and educators that extend well beyond the awardee institutions. Furthermore, CI awards support the operation of such infrastructure, ensuring that awardee institutions are well-positioned to provide a high quality of service to community researchers and educators expected to use the infrastructure to realize their research and education goals.

**Contacts:**

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### **Information and Intelligent Systems (IIS): Core Programs**

**Funding Opportunity Number:** NSF 10-571

**Due Date for Applications:** September 1 – September 15 (Medium Projects); November 1- November 28 (Large Projects); December 1 – December 17 (Small Projects)

**Expected Total Number of Awards:** Unknown

**Estimated Total Program Funding:** \$90,000,000

**Award Ceiling:** \$3,000,000

**Award Floor:** \$500,000

**URL:** <http://www.nsf.gov/pubs/2008/nsf08575/nsf08575.pdf>

**Overview:**

IIS supports three core programs as described below.

***Human Centered Computing (HCC)***

Human beings, whether as individuals, teams, organizations, or societies, play an integral role in all stages of the creation and use of computational systems. Moreover, computing technologies and human societies co-evolve, transforming each other in the process. Human Centered Computing (HCC) research explores creative ideas, novel theories, and innovative technologies that advance our understanding of the complex and increasingly coupled relationships between people and computing.

HCC research targets diverse computing platforms such as traditional computers, handheld and mobile devices, robots, and wearable computers, at scales ranging from an individual device with a single user to large, evolving, heterogeneous socio-technical systems that are emerging from the increasingly pervasive availability of networking technologies. Environments of interest range from physical interaction with a single device to systems in which places and people, both physical and virtual, merge. As all electronic communications media become digital and interconnected, computing is also playing a central role in how humans communicate, work, learn, and play, dramatically

transcending traditional geographical and cultural boundaries. HCC research explores and improves our understanding of new human-computer and human-human interactions, collaboration, and competition, developing systems that are aware of their social surroundings and of the conceptualizations, values, preferences, abilities, special needs, and diverse ranges of capability of the people that use them. HCC researchers and educators explore systems that interact with people using various and possibly multiple modalities such as innovative computer graphics, and haptic, audio, and brain-machine interfaces. HCC research outcomes are expected to transform the human-computer interaction experience, so that the computer is no longer a distraction or worse yet an obstacle, but rather a device or environment that empowers the user at work, in school, at home and at play, and that facilitates natural and productive human-computing integration.

The HCC program encourages research on how humans, in various roles and domains, perceive computing artifacts as they design and use them, and on the wider social implications of those artifacts. HCC supports social and behavioral scientists as well as computer and information scientists whose research contributes to the design and understanding of novel computing technologies and systems.

More information on topics of interest to the HCC program is available at:

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=500051&org=IIS&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=500051&org=IIS&from=home).

### ***Information Integration and Informatics (III)***

Recent years have seen massive growth in the scale, diversity, and complexity of data. Moreover, the data are often used in unanticipated and new ways that frequently require repurposing, transforming, and/or integrating multiple, uncoordinated, and sometimes variously restricted data sources over which data users have no control. The abundance and heterogeneity of data and data sources have created increasing demands on and opportunities for information technologies.

The Information Integration and Informatics (III) program focuses on the processes and technologies involved in creating, managing, visualizing, and understanding diverse digital content in circumstances ranging from individuals through groups, organizations, and societies, and from individual devices to globally-distributed systems. Further, data are only part of a .knowledge life cycle. that progresses from data through knowledge and insight and, ultimately, to action. III funds innovative information technology research that can transform all stages of the knowledge life cycle.

III-funded projects are expected to lead to advances that are driven by specific information-technology challenges. Projects directed mainly at data-collection building and use, that apply existing data technologies to (perhaps) novel data sets, or that propose other activities with limited computing and information technology research potential are not appropriate for this program. III-supported activities can range from theoretical investigations to projects grounded in multi-disciplinary collaborations where data are central to the III-area research. In the case of multi-disciplinary projects proposers should explain the utility of the proposed work to the application domain and demonstrate expertise in that domain among the project participants. Regardless of research modality, proposals should make clear what computing and information technology challenges are being addressed and how the effectiveness of the work will be assessed.

More information on topics of interest to the III program is available at:

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=500052&org=IIS&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=500052&org=IIS&from=home).

### ***Robust Intelligence (RI)***

The Robust Intelligence ( RI ) program encompasses all aspects of the computational understanding and modeling of intelligence in complex, realistic contexts. In contrast to

systems that use limited reasoning strategies or address problems in narrow contexts, robust intelligence may be characterized by a system's flexibility, resourcefulness, use of a variety of modeling or reasoning approaches, and use of real-world data in real time, demonstrating a level of intelligence and adaptability seen in humans and animals. The RI program advances and integrates the research traditions of artificial intelligence, computer vision, human language research, robotics, machine learning, computational neuroscience, cognitive science, and related areas.

Researchers across all areas of RI are addressing progressively richer environments, larger-scale data, and more sophisticated computational and statistical approaches, looking to nature in many cases to model cognitive and computational processes. Interactions across traditional disciplines are also of increasing importance. For example, speech and dialogue research seeks to understand the cognitive psychological underpinnings of conversation that contribute to the robustness of human speech perception and intention understanding. Computer vision is exploring approaches developed in language processing to represent the semantic information in images and video in ways useful for mining, navigation, and robotic interaction, and working with ideas developed in computer graphics and physics-based modeling to understand and depict collections of images. A cognitive architecture may bridge sophisticated planning and problem solving modules with perception and action modules, perhaps accounting for certain human or animal behaviors. Robotic systems need to understand and interact with humans in unfamiliar and unstructured environments. Computational understanding of neurons, networks, and the brain increasingly draws on computer vision, robotics, and machine learning, and provides insights into the coding, representations, and learning underlying intelligent behavior in nature.

These examples are meant to convey the general goals of RI, not to limit its scope. The program supports projects that will advance the frontiers of all RI research areas, as well as those that integrate different aspects of these fields.

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**Cooperative Studies Of The Earth's Deep Interior**

**Funding Opportunity Number:** 06-578  
**Due Date for Applications:** September 25 annually  
**Expected Total Number of Awards:** 10  
**Estimated Total Program Funding:** \$2,000,000  
**Award Ceiling:** unknown  
**Award Floor:** unknown

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf06578](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf06578)

**Overview:**

The Division of Earth Sciences (EAR) invites the submission of proposals for collaborative, interdisciplinary studies of the Earth's interior within the framework of the community-based initiative known as Cooperative Studies of the Earth's Deep Interior (CSEDI). Funding will support basic research on the character and dynamics of the Earth's mantle and core, their influence on the evolution of the Earth as a whole, and on processes operating within the deep interior that affect or are expressed on the Earth's surface. Projects may employ any combination of field, laboratory, and computational studies with observational, theoretical, or experimental approaches. Support is available for research and research infrastructure through grants and cooperative agreements

awarded in response to investigator-initiated proposals from U.S. universities and other eligible institutions. Multidisciplinary work is required. EAR will consider co-funding of projects with other agencies and supports international work and collaborations.

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### **EarthScope**

**Funding Opportunity Number:** NSF - 10-576

**Due Date for Applications:** Oct 01, 2011 Full Proposal Deadline: October 01 annually

**Expected Total Number of Awards:** 1

**Estimated Total Program Funding:** \$600,000

**Award Ceiling:** unknown

**Award Floor:** unknown

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf10576](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10576)

**Overview:**

This solicitation calls for proposals to establish a community-based EarthScope National Office. The Office will foster and support integrated science, education, outreach, and related activities for the EarthScope program; facilitate and coordinate EarthScope scientific planning and education and outreach activities; facilitate collaborative research; and when necessary, form scientific responses to events in EarthScope topics and/or regions of interest.

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### **Geoscience Education**

**Funding Opportunity Number:** 10-512

**Due Date for Applications:** Oct 12, 2010

**Expected Total Number of Awards:** 40

**Estimated Total Program Funding:** \$5,000,000

**Award Ceiling:** \$500,000

**Award Floor:**

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf10512](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10512)

**Overview:**

The Geoscience Education (GeoEd) Program is part of a portfolio of programs within the Directorate for Geosciences (GEO) that seeks to increase public understanding of Earth system science and foster recruitment, training and retention of a diverse and skilled geoscience workforce for the future. The program achieves these goals by supporting innovative or transformative projects that improve the quality and effectiveness of formal and informal geoscience education at all educational levels, increase the number of students pursuing geoscience education and career paths, broaden participation of traditionally underrepresented groups in the geosciences, and promote public engagement in Earth system science. In FY 2010 and FY 2012, the GeoEd program invites proposals in four main areas: advancing public Earth system science literacy, particularly through strengthening geoscience education in grades K-14 and informal



education settings; fostering development and training of the diverse scientific and technical workforce required for 21st century geoscience careers; utilizing modern technologies to facilitate and increase access to geoscience education and/or develop innovative approaches for using geoscience research activities and data for educational purposes; and, establishing regional networks and alliances that bring together scientists, formal and informal science educators, as well as other stakeholders, in support of improving Earth system science education and broadening participation in the geosciences. Proposals focused on basic research that might catalyze discovery and innovation at the frontiers of geoscience learning, education, and evaluation will be considered by the GeoEd Program, but are not viewed as a priority in this solicitation. However, the GeoEd Program expects all proposed project activities to be grounded in current understanding of how students learn and effective STEM education practices. Proposals must include an appropriate evaluation or assessment plan that will help to document project effectiveness and/or impact. The GeoEd Program accepts proposals for pilot or proof-of-concept projects (Track 1) and integrative collaborations (Track 2), as well as for conferences or workshops related to the mission of the program.

**Contacts:**

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### **Geospace Environment Modeling**

**Funding Opportunity Number:** 10-510

**Due Date for Applications:** Oct 15, 2011 October 15, Annually

**Expected Total Number of Awards:** 12

**Estimated Total Program Funding:** \$750,000

**Award Ceiling:**

**Award Floor:**

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf10510](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10510)

**Overview:**

GEM is a broad-based, community-initiated research program on the physics of the Earth's magnetosphere and the coupling of the magnetosphere to the atmosphere and to the solar wind. The purpose of the GEM program is to support basic research into the dynamical and structural properties of geospace, leading to the construction of a global Geospace General Circulation Model (GGCM) with predictive capability. The exact structure of a GGCM may be modular or may consist of a "spine"; such as a global MDH model with links to special modules. The strategy for achieving GEM goals is to create a series of Focus Groups, each of which addresses a specific problem in understanding and modeling the magnetosphere. More information on the structure of the GEM program, the currently active Focus Groups, and the mechanism for creating a new Focus Group can be found at the GEMwiki web site.

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## Partnerships for Innovation

**Funding Opportunity Number:** NSF 10-581

**Due Date for Applications:** December 4, 2011

**Expected Total Number of Awards:** 11

**Estimated Total Program Funding:** \$7,000,000

**Award Ceiling:** \$600,000

**Award Floor:** Unknown

**URL:** [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf10581](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10581)

### Overview:

One of the general goals of the Partnerships for Innovation Program (PFI) is to stimulate the transformation of knowledge created by the research and education enterprise into innovations that create new wealth; build strong local, regional, and national economies; and improve the national well-being. Aligned with this goal, the PFI competition for FY 2011 funds will provide support for innovation capacity building to sustained, dynamic interactive knowledge-enhancing partnership groups composed of academic researchers and small business (as defined by the Small Business Administration (SBA)) practitioners focused on intense exploration, re-definition, and creation of novel platforms for translating research and moving it towards impact. The basic organizational core of each proposed knowledge-enhancing partnership group must be composed of an academic lead institution and, at a minimum, two small businesses. These newly created partnership groups will provide small group process models for innovation, their hallmark being a collaboration in which research and its translation paths are shaped and expanded from both the research and the business perspectives. While the center-piece of this group is academe and small business, large businesses and non-profits may participate in this core knowledge-enhancement partnership unit, which in turn may be embedded in the broader network of a PFI partnership. The purpose of these knowledge-enhancing partnership groups is to develop researchers more agile in adapting their research for use in new applications and to increase the potential viability of existing small businesses to leverage this capacity. In particular, these interactive relationships will increase the researchers' effectiveness to respond to and anticipate the constraints imposed by the operational limitations on translation of the research. They will improve the business practitioners' capability to develop products that will have potentially strong market demand in the future. The ideal project would consist of exploration, re-definition, and creation of a novel platform, that is, one that can be applied to many markets and problems/opportunities (multi-product or process platforms). Some examples of platforms include the following: laser-based technologies that have multiple applications in product verticals; software algorithms that can be customized in different applications to provide multiple functionalities; nano-structured materials that may have multiple applications, environmental remediation technologies; re-manufacturing technologies--a more sustainable approach than conventional manufacturing involving a process of returning used products to at least original performance--that can be applied to diverse industries; energy conservation or storage technologies; innovation through design or education in innovation with widespread impact; and personalized medicine/genetic testing. Partnerships that support areas pertaining to energy, sustainability, or education of next generation entrepreneurs are particularly desirable. Some examples of the kinds of activities that could be engaged in by the knowledge-enhancing partner companies working with academe are feasibility research, alpha-prototype development, design, and product conceptualization. This competition will support 9 to 11 promising partnerships

between academic researchers and small business practitioners that engage in the important process of dynamic knowledge enhancement to build capacity to generate and sustain innovation. Partnerships may also include other academic institutions, other private sector organizations (such as large businesses and not-for-profit organizations) and state/local/federal government.

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## UNITED STATES GEOLOGICAL SURVEY

### 2011 National Spatial Data Infrastructure

**Funding Opportunity Number:** 11HQPA0011

**Due Date for Applications:** January 6, 2011

**Expected Total Number of Awards:** 21

**Estimated Total Program Funding:** \$800,000

**Award Ceiling:** \$60,000

**Award Floor:** \$25,000

**URL:** <http://www.grants.gov/search/search.do?mode=VIEW&oppld=58568>

**Overview:** The purpose of the National Spatial Data Infrastructure Cooperative Agreements Program (NSDI CAP) is to fund innovative projects in the geospatial data community to build the infrastructure necessary to effectively discover, access, share, manage, and use digital geospatial data. The NSDI consists of the technologies, policies, organizations, and people necessary to promote cost-effective production, ready availability, and greater utilization of geospatial data among a variety of sectors, disciplines, and communities. Specific NSDI CAP areas of emphasis include: documenting, implementing, and providing outreach for FGDC geospatial standards including metadata; expanding geographic information coordination and collaboration across and between organizational levels; promoting geospatial best practices; and advancing the implementation and exchange of common geospatial data, services, and applications. The results of the awarded projects benefit multiple Federal agencies as well as the overall geospatial community. Since 1994, the Federal Geographic Data Committee (FGDC), hosted by the U.S. Geological Survey, has awarded projects that advance the NSDI in partnership with the geospatial community. All applicants are required to submit the proposals using the Federal Government's <http://www.grants.gov> Web site for electronic submission. Apply, no later than January 6, 2011 at 2:00 p.m. EDT. A proposal received after the closing date and time will not be considered for award. If it is determined that an application will not be considered because it was late, the applicant will be so notified immediately.

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