

# Bulletin



NATIONAL SCIENCE FOUNDATION

Office of Legislative and Public Affairs

Volume 25, No. 1, September 1997

## NSF Announcements for September 1997

The NSF Bulletin provides monthly news about NSF programs and funding opportunities, deadline and target dates for submission of proposals, current publications, and meetings and conferences as well as sources for more information. Telephone numbers are the Arlington, VA, area code 703 unless otherwise indicated. Individuals who are hearing-impaired should call either NSF's Telephonic Device for the Deaf (TDD) at 306-0090 or the Federal Information Relay Service (FIRS) at 1-800-877-8339 for further information.

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**NOTE:** The CFDA numbers that appear under each directorate heading are taken from the Catalog of Federal Domestic Assistance, a publication issued annually by the Office of Management and Budget and available from the Government Printing Office at (202) 512-1800.

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### NSF to Begin Implementing New Review Criteria

Most proposals received by NSF on or after October 1, 1997, will be reviewed using the two new general criteria previously described in length in the June/July/August 1997 issue of the Bulletin.

This is in accordance with NSF Important Notice 121, issued on July 10, 1997. An exception will be made for program announcements with response dates after October 1 that specifically list the "old" criteria (in use since 1981), or those with response dates before October 1 that specify the new criteria.

Instructions for reviewers have also been revised to clarify the need for comments on a proposal's particular strengths and weaknesses, and to ask the reviewer to state the relative importance of each of the criteria to his or

her overall proposal rating. Proposals will continue to be rated on a five-category system, from Excellent to Poor, but the categories are more clearly defined on the review form. These changes are designed to assist NSF program managers in using the information in the reviews when making their award/decline recommendations.

NSF programs will manage the review of incoming proposals as follows:

- Those submitted in response to program announcements or solicitations that specifically list either the new or old criteria will be reviewed in accordance with the terms of the announcement, no matter when they are received.
- All other proposals, including those received in response to a program announcement, solicitation, or "standing" announcement that reference the standard merit review criteria, as printed in the August 1995 version of the Grant Proposal Guide (GPG) (NSF 98-2, in progress), will be reviewed using the "old" criteria if received before October 1, 1997, and using the new criteria if received on or after that date.
- The official receipt date of a proposal is the log-in date assigned by the Foundation's Proposal Processing Unit, which may be different from the date the proposal is received by a program. This is true whether the proposal was physically delivered to NSF or sent in electronically via FastLane.

Effective immediately, NSF program announcements and solicitations that specify review criteria will include the new criteria when they are published. The GPG will be reissued effective October 1, 1997, and is presently available via the On-Line Document System on the NSF Home Page, <http://www.nsf.gov/>.

For proposal writers and reviewers at academic institutions, NSF asks that general questions about the terms of this Important Notice be directed to campus-sponsored project offices. Questions regarding the handling of a specific proposal should be directed to the NSF program responsible for managing its review.

This change was made in part to make NSF's review process conform to the Foundation's Strategic Plan. For further information, including the Board's resolution and the report on which it is based, visit the National Science Board Office Home Page (<http://www.nsf.gov/home/nsb/>) on the World Wide Web, and click on the "documents" button.

### **STC Integrative Partnerships**

The Science and Technology Centers (STC) Integrative Partnerships Program serves as an innovative vehicle to conduct world-class research by bringing together a critical mass of facilities and expertise from academia, national laboratories, industry, and other sectors of society. The program's mode of funding, which involves multiple partners, brings key strengths to national research enterprises and focuses on making research useful to society.

The program will support basic research to study multidisciplinary problems of the type that NSF normally supports and the integration

of this research with educational processes. The program will initiate a competition in early fiscal year 1998 and expects to make 8 to 10 awards in fiscal year 2000. Proposed annual budgets may range from \$1.5 to \$4.0 million of NSF support.

For updates or further information, visit the Office of Science and Technology Infrastructure (OSTI) Home Page (<http://www.nsf.gov/od/osti/>) on the World Wide Web; or contact OSTI by phone, (703) 306-1040, or by e-mail, [sti@nsf.gov](mailto:sti@nsf.gov).

### **Changes in Eligibility for Doctoral Dissertation Improvement Grants**

The Directorate for Biological Sciences (BIO) announces recent changes in the eligibility criteria for Doctoral Dissertation Improvement Grants. (Further information on these grants appears in the BIO section of this Bulletin under the deadline October 10.) Specifically, a student must have advanced to candidacy for a Ph.D. degree by the submission deadline to be eligible to submit a proposal for one of these grants. In addition, the proposal must include a statement signed by the department chairperson, graduate dean, or similar administrative official certifying that the student has advanced to candidacy for a Ph.D. The next deadline for submission of proposals will be October 10, 1997; the deadline in the years thereafter will be the second Friday in October.

A program announcement (NSF 96-132) containing further information about these grants is available on the NSF On-Line Document System, located on the NSF Home Page (<http://www.nsf.gov/>) on the World Wide Web. General inquiries can be directed to the Division of Environmental Biology at (703) 306-1483, or the Division of Integrative Biology and Neuroscience at (703) 306-1421.

### **Postdoctoral Fellowship Applications Can Now Be Submitted via FastLane**

Applications for several of NSF's postdoctoral fellowships can now be submitted electronically via FastLane (<http://www.fastlane.nsf.gov/>) on the World Wide Web. FastLane will accept applications for the following fellowship programs: Biosciences Related to the Environment (NSF 94-114); Earth Sciences (NSF 93-93); International Programs (NSF 96-14); Mathematical Sciences (NSF 97-130); Molecular Evolution (NSF 93-151); Minority (NSF 94-133); Postdoctoral Fellowships in Science, Mathematics, Engineering, and Technology Education (NSF 97-42); and NATO Postdoctoral Fellowships in Science and Engineering (NSF 96-149). Hard copies of applications can still be sent in the traditional manner.

The program announcements referenced here are available on the NSF On-Line Document System on the NSF Home Page (<http://www.nsf.gov/>) on the World Wide Web. These documents contain deadline information and full program descriptions. Paper copies are available from NSF's Forms and Publications Unit and can be ordered using the order form in the back of this Bulletin.

## **Bulletin**



**NATIONAL SCIENCE  
FOUNDATION**  
Arlington, VA 22230

Neal Lane, Director

Joseph Bordogna, Acting Deputy Director

The **NSF Bulletin** is issued monthly (except July and August). Use of funds for printing this periodical has been approved by the Office of Management and Budget.

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Office of Legislative and Public Affairs  
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Questions regarding FastLane only, can be answered by Ms. Beverly Sherman in the Division of Information Systems by phone, (703) 306-1145, ext. 4615, or by e-mail, bsherman@nsf.gov.

## NSF Permits Extensions of SGER Awards

NSF uses Small Grants for Exploratory Research (SGER) as a mechanism to fund small-scale exploratory work in all fields of science, engineering, and education supported by the Foundation, through brief proposals without the usual external review. Such work includes preliminary research on untested and novel ideas; ventures into emerging research areas; research requiring urgent access to specialized data, facilities, or equipment; and similar exploratory efforts likely to catalyze innovative advances.

Research programs, including those that support education-related research, may use up to 5 percent of their budgets for SGER awards. These awards are normally for 1 year (but may be for up to 2 years) and may not exceed \$100,000, with the average amount depending on the particular program; they are not renewable. Only one copy of a brief proposal is required. NSF program officers are not required to seek advice from external reviewers before making their recommendations; therefore, principal investigators are strongly encouraged to contact the appropriate program officer directly to see if the proposed research would be suitable for SGER support, or if a fully reviewable proposal should be submitted.

Except for programs in the Biological Sciences and the Education and Human Resources Directorates, program officers may at their discretion extend a small number of SGER awards for 6 additional months, with up to \$50,000 in supplemental funding. Requests for such extensions should be submitted 1 to 2 months prior to the expiration date

of the initial SGER award and should contain a progress report and outline of the proposed research not exceeding five pages.

For more information, see the NSF Grant Proposal Guide (GPG) (NSF 98-2, in progress), available via the On-Line Document System on the NSF Home Page (<http://www.nsf.gov/>) on the World Wide Web. Printed copies of the new GPG will be available in October. Direct general inquiries to the appropriate research division.

## Alan T. Waterman Award Nominations

The deadline for receipt of nominations and reference forms for the 23rd Alan T. Waterman Award is October 31, 1997. The award, presented annually to an outstanding young researcher in any field of science or engineering, will be announced and presented in May 1998. For further information and/or a copy of the guidelines for submission, contact Mrs. Susan Fannoney in the National Science Board Office at (703) 306-1096.

## Reminder—Upcoming Grants Conference

On October 13 and 14, 1997, NSF and the University of Pittsburgh will host the first Regional Grants Conference of fiscal year 1998. The conference will be held at the Pittsburgh Marriott City Center, 112 Washington Place, Pittsburgh, PA.

Workshops and presentations by NSF staff will cover the following topics: introduction and NSF overview; proposal preparation; the merit review process; electronic initiatives, policies, and special issues; grant administration, compliance, and accountability; new programs and initiatives; and future directions and strategies for a national science policy.

NSF staff participants will include the Chief Financial Officer; senior officials from the Office of Legislative and Pub-

NSF funds research and education in most fields of science and engineering. Grantees are wholly responsible for conducting their project activities and preparing the results for publication. Thus the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals on behalf of all qualified scientists, engineers, and science educators and strongly encourages women, minorities, and persons with disabilities to participate fully in its programs.

In accordance with federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving financial assistance from NSF.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. For more information, see the program announcement (NSF 91-54), or contact the program coordinator at 306-1636.

**Privacy Act and Public Burden.** The information requested on proposal forms is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified proposals and may be disclosed to qualified reviewers and staff assistants as part of the review process; to applicant institutions/grantees to provide or obtain data regarding the application review process, award decisions, or the administration of awards; to government contractors, experts, volunteers, and researchers as necessary to complete assigned work; and to other government agencies in order to coordinate programs. See Systems of Records, NSF-50, "Principal Investigators/Proposal File and Associated Records," 60 Federal Register 4449 (Jan. 23, 1995), and NSF-51, "Reviewer/Proposal File and Associated Records," 59 Federal Register 8031 (Feb. 17, 1994). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of your receiving an award.

The public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Gail A. McHenry, Reports Clearance Officer, Information Dissemination Branch, National Science Foundation, 4201 Wilson Boulevard, Suite 245, Arlington, VA 22230.

The National Science Foundation has TDD and FIRS capabilities, which enable individuals with hearing impairment to communicate with the Foundation about NSF programs, employment, or general information. To access TDD, dial 306-0090; for FIRS, dial 1-800-877-8339.

lic Affairs, the Office of the General Counsel, the Office of Information Resources Management, the Division of Contracts, Policy, and Oversight, and the Division of Grants and Agreements; and various program directors.

For further information, contact the NSF Policy Office in the Division of Contracts, Policy, and Oversight by phone, (703) 306-1243, or by e-mail, [policy@nsf.gov](mailto:policy@nsf.gov).

For registration information, contact the University of Pittsburgh by telephone, (412) 624-7400, or by e-mail, [pittnsf@orserver.off-res.pitt.edu](mailto:pittnsf@orserver.off-res.pitt.edu); or visit NSF's conference Web Site (<http://www.pitt.edu/~offres/nsfconf.html>) on the World Wide Web, which offers on-line registration and general conference information.

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## Program Deadlines and Target Dates for Proposals

The Bulletin gives key dates on which grant proposals are due at NSF for the next 4 months. These dates are subject to change. Further information on the programs in this publication is available from the staff members or offices listed for each entry; from the NSF Guide to Programs (NSF 97-30, in revision); or from the NSF Home Page on the Web. Unless otherwise indicated, brochures in parentheses are available from NSF's Publications Office and may be requested by filling out the Publications Order Form located in the back of this Bulletin. In addition, many of NSF's publications are available electronically on the Web. The number and letter codes after some announcements refer to listings in the publication Keyword Thesaurus. They are used by the research management offices of colleges and universities to target NSF Bulletin information to potential users.

**Program Deadlines: Unless otherwise stated in announcements or solicitations, proposals postmarked after these cutoff dates generally will be returned to the proposer.**

**Target Dates: Unless otherwise stated in announcements or solicitations, proposals postmarked after these cutoff dates will be reviewed, although they may miss a particular panel meeting.**

**Most NSF programs that do not have a specific deadline or target date will accept proposals at any time of the year. These programs do not appear in the Bulletin. It takes approximately 6 months to process a proposal.**

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### Cross-Directorate Programs

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the NSF Home Page (<http://www.nsf.gov/>) on the Web.

#### PROGRAM DEADLINES:

##### September 8, 1997—

**Integrative Graduate Education and Research Training Program (IGERT).** (Brochure NSF 97-112.) For **Biological Sciences**, contact Dr. Gerald Selzer by phone, 306-1469, or by e-mail, [gselzer@nsf.gov](mailto:gselzer@nsf.gov); for **Computer and Information Science and Engineering**, contact Dr. William Agresti by phone, 306-1911, or by e-mail, [wagresti@nsf.gov](mailto:wagresti@nsf.gov); for **Education and Human Resources**, contact Dr. Paul Jennings by phone, 306-1696, or by e-mail, [pjenning@nsf.gov](mailto:pjenning@nsf.gov); for **Engineering**, contact Dr. Joy Pauschke by phone, 306-1380, or by e-mail, [jpauschk@nsf.gov](mailto:jpauschk@nsf.gov); for **Geosciences**, contact Dr. Jewel Prendeville by phone, 306-1521, or by e-mail, [jprendev@nsf.gov](mailto:jprendev@nsf.gov); for **Mathematical and Physical Sciences**, contact Dr. Henry Blount by phone, 306-1946, or by e-mail, [\[nsf.gov\]\(mailto:nsf.gov\); for \*\*Polar Programs\*\*, contact Dr. Douglas Siegel-Causey by phone, 306-1030, or by e-mail, \[dsiegel@nsf.gov\]\(mailto:dsiegel@nsf.gov\); and for \*\*Social, Behavioral, and Economic Sciences\*\*, contact Dr. John Perhoni by phone, 306-1743, or by e-mail, \[jperhoni@nsf.gov\]\(mailto:jperhoni@nsf.gov\). \[PT.34,44; K.W.0500000,0901072,1000000.\]](mailto:hblount@</a></p></div><div data-bbox=)

##### December 9, 1997—

#### Professional Opportunities for Women in Research and Education (POWRE).

(Brochure NSF 97-91.) For general program information Foundation wide, contact Dr. Priscilla Nelson by phone, 306-1361, or by e-mail, [pnelson@nsf.gov](mailto:pnelson@nsf.gov). For **Biological Sciences**, contact Dr. Stacia Sower by phone, 306-1421, or by e-mail, [biopowre@nsf.gov](mailto:biopowre@nsf.gov); for **Computer and Information Science and Engineering**, contact Dr. Caroline Wardle by phone, 306-1980, or by e-mail, [cwardle@nsf.gov](mailto:cwardle@nsf.gov); for **Education and Human Resources**, contact Dr. Margrete Klein by phone, 306-1649, or by e-mail, [mklein@nsf.gov](mailto:mklein@nsf.gov); for **Engineering**, contact Dr. Raul Miranda by phone, 306-1371, or by e-mail, [rmiranda@nsf.gov](mailto:rmiranda@nsf.gov); for **Geosciences**, contact Dr. Jewel Prendeville by phone, 306-1521, or by e-mail, [jprendev@nsf.gov](mailto:jprendev@nsf.gov); for **Mathematical and Physical Sciences**, contact Dr. Denise Caldwell by phone, 306-1807, or by e-mail, [dcaldwel@nsf.gov](mailto:dcaldwel@nsf.gov); for **Polar Programs**, contact Dr. Julie Palais by phone, 306-1033, or by e-mail, [jpalais@nsf.gov](mailto:jpalais@nsf.gov); and for **Social, Behavioral, and Economic Sciences**, contact Ms. Bonney Sheahan by phone, 306-1733, or by e-mail, [bsheahan@nsf.gov](mailto:bsheahan@nsf.gov). [PT.22,34;FF; K.W. 0102000,0111001,0500000,0600000, 1002000,1004000,1005000,1010000.]

#### DATE TO BE ANNOUNCED—

**Environmental Geochemistry and Biogeochemistry.** (Brochure in revision.) Unsolicited proposals for this specific component may be submit-

ted to any of the following divisions: **Earth Sciences**, contact Dr. Maryellen Cameron by phone, 306-1554, or by e-mail, mcameron@nsf.gov; **Ocean Sciences**, contact Dr. Ken Buesseler by phone, 306-1589, or by e-mail, kbuessel@nsf.gov; **Chemistry**, contact Dr. Margaret Cavanaugh by phone, 306-1842, or by e-mail, mcavanau@nsf.gov; **Chemical and Transport Systems**, contact Dr. M.C. Roco by phone, 306-1371, or by e-mail, mroco@nsf.gov; **Atmospheric Sciences**, contact Dr. Anne-Marie Schmoltner by phone, 306-1528, or by e-mail, aschmolt@nsf.gov; **Environmental Biology**, contact Dr. Gausis Shaver by phone, 306-1479, or by e-mail, gshaver@nsf.gov; **Molecular and Cellular Biosciences**, contact Dr. Charles Liarakos by phone, 306-1441, or by e-mail, cliarako@nsf.gov; and contact the **Division of Mathematical Sciences** at 306-1870. [PT.18,34,40,42; K.W.1002016,1002027,1005002,1007001,1007002.]

## Biological Sciences

CFDA #47.074

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the BIO Directorate Home Page (<http://www.nsf.gov/bio/>) on the Web.

### PROGRAM DEADLINES:

#### September 15, 1997—

**Research Experiences for Undergraduates (REU)—Sites.** (Brochure NSF 96-102.) Contact Dr. Fred Stollnitz in the Division of Integrative Biology and Neuroscience by phone, 306-1413, or by e-mail, fstollni@nsf.gov. [PT.34; K.W.0400000,0600000,1000000,1002000,1010000.]

#### October 10, 1997—

**Doctoral Dissertation Improvement Grants in the Directorate for Biological Sciences.** (Brochure NSF 96-132.) In the **Division of Environmental Biology**, contact Mrs. Elizabeth

Behrens by phone, 306-1483, or by e-mail, ebehrens@nsf.gov; and in the **Division of Integrative Biology and Neuroscience**, contact Dr. John Phillips by phone, 306-1421, or by e-mail, jphillip@nsf.gov. [PT.34,40; K.W.1002000,1002146,1007001.]

#### November 4, 1997—

**Joint NSF/Alfred P. Sloan Foundation Postdoctoral Research Fellowships in Molecular Evolution.** (Brochure NSF 93-151, rev. 7/94.) Applications can be submitted via FastLane or in hard copy. Contact Ms. Carter Kimsey in the Division of Biological Infrastructure by phone, 306-1469, or by e-mail, ckimsey@nsf.gov. [PT.22,34; K.W.1002008.]

#### November 7, 1997—

**Long-Term Projects in Environmental Biology—Biotic Surveys and Inventories.** (Brochure NSF 97-136.) Contact Dr. Joel Martin in the Division of Environmental Biology by phone, 306-1483, or by e-mail, jmartin@nsf.gov. [PT.34; K.W.0404021,1002000.]

**Postdoctoral Research Fellowships in Biosciences Related to the Environment.** (Brochure NSF 94-114.) Applications can be submitted via FastLane or in hard copy. Contact Ms. Carter Kimsey in the Division of Biological Infrastructure by phone, 306-1469, or by e-mail, ckimsey@nsf.gov. [PT.22,34; K.W.1002000,1007001.]

#### December 5, 1997—

**Minority Postdoctoral Research Fellowships.** (Brochure NSF 94-133.) Applications can be submitted via FastLane or in hard copy. Contact Ms. Carter Kimsey in the Division of Biological Infrastructure by phone, 306-1469, or by e-mail, ckimsey@nsf.gov. [PT.22,34;FF; K.W.1002000,1002008.]

### TARGET DATES:

#### December 15, 1997—

**Ecological Studies.** In the **Ecosystems Program**, contact Dr. Gausis Shaver or Dr. Penelope Firth; and in the **Ecology Program**, contact Dr. Thomas Frost or Dr. Jon Keeley; Division of Environmental Biology, 306-1479. [PT.34; K.W.1002016.]

**Systematic and Population Biology.** In the **Systematics Program**, contact Dr. Joel Martin, Dr. Charles O'Kelly, or Dr. James Rodman; and in the **Population Biology Program**, contact Dr. Elizabeth Lyons, Dr. Mark Courtney, or Dr. Timothy Mousseau; Division of Environmental Biology, 306-1481. [PT.34; K.W.0413004,1002011.]

## Computer and Information Science and Engineering

CFDA #47.070

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the CISE Directorate Home Page (<http://www.cise.nsf.gov/>) on the Web.

### PROGRAM DEADLINES:

#### September 15, 1997—

**New Technologies Program.** (Brochure NSF 97-27.) Proposals will be accepted in the areas of programming environments and tools, graphics and visualization, and high performance computing. Contact Dr. John Van Rosendale in the Division of Advanced Scientific Computing by phone, 306-1962, or by e-mail, jvanrose@nsf.gov. [PT.34; K.W.1004000.]

#### September 16, 1997—

**Numeric, Symbolic, and Geometric Computation.** Contact Dr. Kamal Abdali in the Division of Computer and Computation Research by

phone, 306-1912, or by e-mail, kabdali@nsf.gov. [PT.34; K.W. 1004190,1004250.]

### September 30, 1997—

**Theory of Computing.** Contact Dr. Zeke Zalcstein in the Division of Computer and Computation Research by phone, 306-1912, or by e-mail, zzalcste@nsf.gov. [PT.34; K.W. 1004000.]

### October 20, 1997—

**CISE Research Infrastructure Program.** (Brochure NSF 95-125.) Limited to U.S. institutions with Ph.D. degree-granting departments that have research programs in areas of computer science, information science, or computer engineering that are supported by the CISE Directorate. Contact Dr. John Cherniavsky or Dr. Tse-yun Feng in the Office of Cross-Disciplinary Activities by phone, 306-1981, or by e-mail, jchernia@nsf.gov or tfeng@nsf.gov. [PT.34; K.W. 1004000.]

### November 7, 1997—

**CISE Postdoctoral Research Associates in Computational Science and Engineering and CISE Postdoctoral Research Associates in Experimental Computer Science.** (Brochure NSF 95-128.) Contact Ms. Rita Rodriguez in the Office of Cross-Disciplinary Activities by phone, 306-1980, or by e-mail, rrodrigu@nsf.gov. [PT.34; K.W. 1004000,1004003.]

### November 10, 1997—

**Computer Systems Software.** (Operating systems, parallel and distributed computing and architecture.) A second deadline of January 13, 1998, has been established for proposals in the area of compiling techniques. Contact Dr. Anand Tripathi in the Division of Computer and Computation Research by phone, 306-1912, or by e-mail, atripath@nsf.gov. [PT.34; K.W. 1004000.]

### November 18, 1997—

**Software Engineering and Languages.** Contact Dr. Frank Anger in the Division of Computer and Computation Research by phone, 306-1911, or by e-mail, fanger@nsf.gov. [PT.34; K.W.1004007.]

### November 20, 1997—

**Numeric, Symbolic, and Geometric Computation.** Contact Dr. Kamal Abdali in the Division of Computer and Computation Research by phone, 306-1912, or by e-mail, kabdali@nsf.gov. [PT.34; K.W.1004190, 1004250.]

### December 1, 1997—

**Networking and Communications Research.** (Brochure NSF 89-110.) Contact Dr. Thomas Fuja or Dr. Tatsuya Suda in the Division of Networking and Communications Research and Infrastructure by phone, 306-1949, or by e-mail, tfuja@nsf.gov or tsuda@nsf.gov. [PT.34; K.W.0405000,1004055.]

### December 15, 1997—

**Theory of Computing.** Contact Dr. Zeke Zalcstein in the Division of Computer and Computation Research by phone, 306-1912, or by e-mail, zzalcste@nsf.gov. [PT.34; K.W. 1004000.]

### December 16, 1997—

**Experimental Software Systems.** This activity supports research projects with significant experimental content that are conducted by small teams of investigators. Examples are experiments in software engineering, prototyping and evaluation of novel software systems, and experiments in distributed and parallel computing. Proposals for cross-disciplinary research that will contribute to the advancement of state-of-the-art software systems will be welcomed. Contact Dr. William Agresti in the Division of Computer and Computation Research by phone, 306-1911, or by e-mail, wagresti@nsf.gov. [PT.34; K.W. 1004000.]

## TARGET DATES:

### September 15, 1997—

**Database and Expert Systems.** (Contact program for more information.) Proposals should be submitted as close to the target date as possible. Contact Dr. Barbara Blaustein in the Division of Information, Robotics, and Intelligent Systems by phone, 306-1926, or by e-mail, bblauste@nsf.gov. [PT.34; K.W.1004000,1004027.]

**Division of Information, Robotics, and Intelligent Systems (IRIS).** (For more information, visit the IRIS Home Page, located on the CISE Home Page.) IRIS strives to coordinate interdisciplinary pro-posal processing by encouraging division-wide target dates of September 15 and November 15 for the submission of proposals. Review panels are held in late fall and late spring. Contact the IRIS Division at 306-1930. [PT.34; K.W.0607019,1004000.]

**Information Technology and Organizations.** (Contact program for more information.) Proposals should be submitted as close to the target date as possible. Contact Dr. Les Gasser in the Division of Information, Robotics, and Intelligent Systems by phone, 306-1926, or by e-mail, lgasser@nsf.gov. [PT.34; K.W.1004017.]

**Interactive Systems.** (Contact program for more information.) Immediately following the deadline date, the panel will meet to review proposals. The program supports research that is fundamental to the design of technology and systems for human/computer communication, with a particular emphasis placed on inter-active dialogue in several modalities. Proposals should be submitted as close to the target date as possible. Contact Dr. Gary Strong in the Division of Information, Robotics, and Intelligent Systems by phone, 306-1929, or by e-mail, gstrong@nsf.gov. [PT.34; K.W. 0607070,1004144.]

**Knowledge Models and Cognitive Systems.** (Contact program for more information.) Proposals should be submitted as close to the target date as possible. Contact Dr. Larry Reeker in the Division of Information, Robotics, and Intelligent Systems by phone, 306-1926, or by e-mail, lreeker@nsf.gov. [PT.34; K.W.1004170,1004215.]

**Robotics and Machine Intelligence.** (Contact program for more information.) This program supports research in robotics and robotic perception, including computer vision and image understanding. Emphasis is on autonomous intelligent behavior of machines. When submitting a proposal, send a total of 15 copies. Proposals should be submitted as close to the target date as possible. Contact Dr. Howard Moraff in the Division of Information, Robotics, and Intelligent Systems by phone, 306-1928, or by e-mail, hmoraff@nsf.gov. [PT.34; K.W.0607019.]

## November 1, 1997—

**Computing Systems Research (formerly Microelectronic Systems Architecture).** (Brochure NSF 95-110 (A).) Contact Dr. Michael Foster in the Division of Microelectronic Information Processing Systems by phone, 306-1936, or by e-mail, mfoster@nsf.gov. [PT.34; K.W.0607010.]

**Design Automation (formerly Design, Tools, and Test).** (Brochure NSF 95-110 (A).) Contact Dr. Robert Grafton in the Division of Microelectronic Information Processing Systems by phone, 306-1936, or by e-mail, rgrafton@nsf.gov. [PT.34; K.W.0607028,0607067.]

**Experimental Systems.** (Brochure NSF 95-110 (A).) Contact Dr. Michael Foster in the Division of Microelectronic Information Processing Systems by phone, 306-1936, or by e-mail, mfoster@nsf.gov. [PT.34; K.W.1004009,1004017.]

**Prototyping Tools and Methodology (formerly Systems Prototyping and Fabrication).** (Brochure NSF 95-110 (A).) Contact Dr. Joseph Cavallaro in the Division of Microelectronic Information Processing Systems by phone, 306-1936, or by e-mail, jcavalla@nsf.gov. [PT.34,42; K.W.1004000.]

**Signal Processing Systems (formerly Circuits and Signal Processing).** (Brochure NSF 95-110 (A).) Contact Dr. John Cozzens in the Division of Microelectronic Information Processing Systems by phone, 306-1936, or by e-mail, jcozzens@nsf.gov. [PT.34; K.W.0607028,0607074.]

## November 15, 1997—

**Division of Information, Robotics, and Intelligent Systems (IRIS).** (For more information, visit the IRIS Home Page, located on the CISE Home Page.) IRIS strives to coordinate interdisciplinary proposal processing by encouraging division-wide target dates of September 15 and November 15 for the submission of proposals. Review panels are held in late fall and late spring. Contact the IRIS Division at 306-1930. [PT.34; K.W.0607019,1004000.]

## Education and Human Resources

CFDA #47.076

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the EHR Directorate Home Page (<http://www.ehr.nsf.gov/>), on the Web.

## PROGRAM DEADLINES:

### September 15, 1997—

**Collaboratives for Excellence in Teacher Preparation.** Formal Proposals Due. (Brochure NSF 97-29.) This program seeks to promote comprehensive change in the undergraduate education of future teachers by encouraging collaborative efforts

among institutions and among the faculties in the departments of mathematics, the sciences, and education. It is strongly advised that institutions planning to submit a formal proposal first submit a preliminary proposal. Contact the Division of Undergraduate Education at 306-1666. [PT.44; K.W.0501051,0502036,0505015.]

**Research Experiences for Undergraduates (REU)—Sites.** (Brochure NSF 96-102.) This is the annual deadline for REU Sites proposals. Proposals for REU supplements will be accepted at any time; however, some programs have target dates and review supplement requests in a comparative manner. Applicants should contact the cognizant NSF program officer early in the fiscal year, which begins October 1. For nondisciplinary or general information, contact Dr. Peter Yankwich in the Division of Undergraduate Education by phone, 306-1603, or by e-mail, reu.coord@nsf.gov. [PT.34; K.W.0505015.]

## October 1, 1997—

**Implementation and Development Projects (IDP).** Preliminary Proposals Due—Under \$100,000. (Brochure NSF 96-131.) This program funds projects that build on existing research about gender and science, engineering, and mathematics infrastructure to create positive, permanent change in academic, social, and scientific climates. Awards will be granted for up to 3 years, with budgets of up to \$100,000. Formal proposals are due February 1, 1998. Contact the Programs for Women and Girls in the Division of Human Resource Development by phone, 306-1637, or by e-mail, hrdwomen@nsf.gov. [PT.06,12,34,42;II; K.W.0502023,0502031,0502042.]

**Information Dissemination Activities for Persons with Disabilities.** Formal Proposals Due. (Brochure NSF 96-88.) This effort supports activities designed to disseminate and promote utiliza-

tion of program results and to promote replication of successful strategies used to increase the recruitment and retention of persons with disabilities in science, mathematics, engineering, and technology (SMET) education and career development. Audiences for these activities include precollege school counselors and science and mathematics teachers, college and university SMET faculty, and families of students with disabilities. Prospective proposers who did not submit a preliminary proposal by July 15, 1997, are not eligible to submit a formal proposal. Contact the Programs for Persons with Disabilities in the Division of Human Resource Development by phone, 306-1636, or by e-mail, hrdppd@nsf.gov. [PT.16;DD; K.W.0502006,0770010.]

**Model Projects for Persons with Disabilities.** Formal Proposals Due. (Brochure NSF 96-88.) The intention of this activity is to (a) encourage the design and implementation of innovative and highly focused activities that will improve the access and retention of persons with disabilities in enhanced education and careers in the fields of science, engineering, and mathematics; and (b) demonstrate the effectiveness of existing activities with the same goals. These goals can be achieved through evaluation, refinement, and expansion, or replication with a different population or setting. Prospective proposers who did not submit a preliminary proposal by July 15, 1997, are not eligible to submit a formal proposal. Contact the Programs for Persons with Disabilities in the Division of Human Resource Development by phone, 306-1636, or by e-mail, hrdppd@nsf.gov. [PT.12,25;II; K.W.0500000,0502006.]

### October 15, 1997—

**Alliances for Minority Participation (AMP).** Implementation Proposals Due. (Brochure NSF 96-144.) This program supports proposals designed to form coalitions among the science,

engineering, and mathematics communities to substantially increase student baccalaureate degrees in fields supported by NSF. Research scientists, engineers, educators, and administrators are eligible to submit for nonprofit organizations and/or academic institutions. Contact the Division of Human Resource Development by phone, 306-1632, or by e-mail, hrdamp@nsf.gov. [PT.40;FF; K.W.0500000,0502006.]

**Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA).** (Brochure NSF 96-144.) This program supports comprehensive precollege education reform programs aimed at city school systems. Acting as the units of change, city school systems are expected to link with institutions of higher education and community-based and other educational organizations in the design and implementation of a combination of in-school student and teacher enhancement activities and informal education efforts. The goals are to improve student achievement in mathematics and science courses; enhance teacher knowledge and skills; and expand student interest in science, mathematics, and technology as career choices. Contact the Division of Human Resource Development by phone, 306-1633, or by e-mail, hrdcpmsa@nsf.gov. [PT.25;FF; K.W.0501051,0502006,0502055.]

### October 21, 1997—

**Advanced Technological Education.** Formal Proposals for Centers and Projects Due. (Brochures NSF 97-20 and NSF 97-29.) This program promotes exemplary improvement in advanced technological education within associate degree-granting institutions in collaboration with 4-year institutions, secondary schools, and industry. Support is given for curriculum development and program improvement for science and engineering technicians who are being

educated for the high-performance workplace. Support may be provided for a variety of projects and a few centers. Contact the Division of Undergraduate Education at 306-1668. [PT.25; K.W.0502006,0502056,0503016.]

### November 6, 1997—

**Graduate and Minority Graduate Research Fellowships.** (Brochure NSF 97-133.) Contact the Division of Graduate Education by phone, 306-1694, or by e-mail, grfp@nsf.gov. For copies of the announcement and application materials, write to Oak Ridge Associated Universities, NSF Graduate Research Fellowships Program, P.O. Box 3010, Oak Ridge, TN 37831-3010; or contact by phone, (423) 241-4300, or by e-mail, nsfgrfp@orau.gov. [PT.22,34;FF; K.W.0500000.]

### November 14, 1997—

**NATO Postdoctoral Fellowships in Science and Engineering.** (Brochure in revision.) Contact the Division of Graduate Education by phone, 306-1696, or by e-mail, nsf-nato@nsf.gov. [PT.22,34; K.W.0309008,0400000,0600000,1002000,1010000,1013000.]

### December 1, 1997—

**Centers of Research Excellence in Science and Technology (CREST).** (Brochure NSF 96-144.) This effort is geared toward increasing the number of underrepresented groups in science and education by making substantial resources available to upgrade the capabilities of the most research-productive institutions. Contact the program in the Division of Human Resource Development by phone, 306-1634, or by e-mail, hrdcrest@nsf.gov. [PT.04,18;FF; K.W.1014001.]

**Research on Education, Policy, and Practice (REPP).** Formal Proposals Due. (Brochure NSF 96-138.) Supports research in the following areas: Data, Methodology, and Theory; Policy;



Practice; and Technology. Contact Dr. Christopher Dede in the Division of Research, Evaluation, and Communication by phone, 306-1651, ext. 5893, or by e-mail, [cjdede@nsf.gov](mailto:cjdede@nsf.gov). The target date for preliminary proposals (required) was September 15, 1997. [PT.34; K.W.0502023,0502031.]

## DATE TO BE ANNOUNCED—

NOTE: The deadline dates for the following programs are undetermined at this time; please refer to the DUE Home Page for updated information (located on the EHR Home Page, <http://www.ehr.nsf.gov/>, on the Web).

### Course and Curriculum Development.

(Brochure NSF 97-29.) This program provides support to improve the quality of courses and curricula in science, mathematics, engineering, and technology. Proposals are encouraged that address the goals of the initiative Mathematical Sciences and Their Application Throughout the Curriculum but that are smaller in scale than those previously supported. Proposals are also encouraged for adopting materials and strategies developed by projects currently funded through the Systemic Changes in the Undergraduate Chemistry Curriculum initiative. Contact the Division of Undergraduate Education at 306-1681. [PT.25; K.W.0500000.]

### Institution-Wide Reform of Undergraduate Education in Science, Mathematics, Engineering, and Technology.

(Brochure NSF 96-74.) This initiative seeks to assist institutions in their efforts to plan and initiate comprehensive changes in undergraduate education in science, mathematics, engineering, and technology. Grants are designed to stimulate modernization of the academic culture and infrastructure, prompt a reexamination of institutional priorities and allocation of resources, and promote an integration of research and educational

activities. Contact the Division of Undergraduate Education at 306-1666. [K.W.0505015.]

### Instrumentation and Laboratory Improvement.

(Brochure NSF 97-29.) Proposals are intended for the development of innovative experiments and laboratory courses and curricula at the undergraduate level. The program provides matching grants for the equipment needed to carry out the project. Contact the Division of Undergraduate Education at 306-1666. [PT.18; K.W.1014001.]

### Undergraduate Faculty Enhancement Program.

(Brochure NSF 97-29.) This program supports workshops and other activities that target faculty who are teaching undergraduate students, to inform them about advances in their fields and help them incorporate this knowledge into their instructional material. Contact the Division of Undergraduate Education at 306-1666. [PT.25,42; K.W.0501051,0505015,0901072.]

## TARGET DATES:

### September 2, 1997—

#### Teacher and Student Development (formerly Teacher Enhancement).

Formal Proposals Due. (Brochure NSF 97-20.) This program improves the disciplinary and pedagogical knowledge of teachers who are to provide quality science, mathematics, and technology education for students in grades pre-K through 12. The program also supports projects to implement local systemic change in science, mathematics, and technology education in grades K through 8; mathematics education in grades 7 through 12; and research experiences for students and teachers together. Preliminary proposals were due April 1, 1997. Contact the Division of Elementary, Secondary, and Informal Education at 306-1613. [PT.25; K.W.0501051,0502036.]

### September 8, 1997—

**Integrative Graduate Education and Research Training Program (formerly Graduate Research Traineeships (GRTs) and Research Training Grants (RTGs) Programs).** Preliminary Proposals Due. Contact Dr. Paul Jennings in the Division of Graduate Education by phone, 306-1696, or by e-mail, [pjennin@nsf.gov](mailto:pjennin@nsf.gov). [PT.34,44; K.W.0500000.]

### September 15, 1997—

#### Research on Education, Policy, and Practice (REPP).

Preliminary Proposals Due. (Brochure NSF 96-138.) Supports research in the following areas: Data, Methodology, and Theory; Policy; Practice; and Technology. Contact Dr. Christopher Dede in the Division of Research, Evaluation, and Communication by phone, 306-1651, ext. 5893, or by e-mail, [cjdede@nsf.gov](mailto:cjdede@nsf.gov). The deadline date for formal proposals is December 1, 1997. [PT.34; K.W.0502023,0502031.]

### November 17, 1997—

#### Informal Science Education.

Formal Proposals Due. (Brochure NSF 97-20.) This program promotes a better understanding of the process of science and scientific thinking through learning that is voluntary, self-directed, and long term. Informal science programs are often visual or object-oriented and operate through a variety of media and organizations, including television, film, museums, nature centers, parks, and libraries. The projects are designed to reach a large national or regional audience for maximum impact and seek to promote new relationships between informal and formal education. Preliminary proposals were due August 1, 1997. Contact the Division of Elementary, Secondary, and Informal Education at 306-1616. [PT.25; K.W.0502031,0502058,0503003.]

## December 15, 1997—

**Integrative Graduate Education and Research Training Program (formerly Graduate Research Traineeships (GRTs) and Research Training Grants (RTGs) Programs).** Formal Proposals Due—By Invitation Only. This deadline applies only to those institutions who have been invited by the Foundation to submit a formal proposal on the basis of their having already submitted a successful preproposal during the September 8, 1997, preproposal competition. Contact Dr. Paul Jennings in the Division of Graduate Education by phone, 306-1696, or by e-mail, [pjennin@nsf.gov](mailto:pjennin@nsf.gov). [PT.34,44; K.W.0500000.]

## Engineering

CFDA #47.041

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the ENG Directorate Home Page (<http://www.nsf.gov:80/eng/>) on the Web.

## PROGRAM DEADLINES:

### October 1, 1997—

**Civil and Mechanical Systems (CMS).** Submission of unsolicited proposals to CMS/ENG for panel review in the following programs: Geomechanical, Geotechnical, and Geo-environmental Systems; Mechanics and Materials; Surface Engineering and Tribology; Dynamic Systems and Control; Structural Systems and Construction Processes; and Large Structural and Building Systems. Contact the Division of Civil and Mechanical Systems at 306-1361. [PT.34; K.W.0600000, 0606000,0609024.]

**Design, Manufacture, and Industrial Innovation (DMII).** Submission of unsolicited proposals for DMII/ENG panel review in the following programs: Materials Processing and Manufacturing, Manufacturing Machines and Equipment, Engineering Design, Integration Engineering,

Operations Research, and Production Systems. Contact the Division of Design, Manufacture, and Industrial Innovation at 306-1328. [PT.34; K.W.0608000,0608002,0608011,0609010.]

**Management of Technological Innovation.** (Brochure NSF 96-27.) Contact Dr. Joseph Hennessey in the Division of Design, Manufacture, and Industrial Innovation by phone, 306-1391, or by e-mail, [jhennes@nsf.gov](mailto:jhennes@nsf.gov). [PT.34; K.W.0608002.]

### October 10, 1997—

**Small Business Innovation Research (SBIR) Program—Phase II.** Due Date for Submission of SBIR Phase II Proposals. Contact the Division of Design, Manufacture, and Industrial Innovation by phone, 306-1390, or by e-mail, [sbir@nsf.gov](mailto:sbir@nsf.gov). [PT.34; K.W.0901043.]

## TARGET DATES:

### October 1, 1997—

**Electrical and Communications Systems (ECS).** This deadline is for submission of unsolicited proposals to all programs in the ECS Division. These are Physical Foundations of Enabling Technologies, Knowledge Modeling and Computational Intelligence, and Integrative Systems. Contact the Division of Electrical and Communications Systems at 306-1339. [PT.34; K.W.0600000,0607002.]

## Geosciences

CFDA #47.050

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the GEO Directorate Home Page (<http://www.geo.nsf.gov/>) on the Web.

## PROGRAM DEADLINES:

### October 1, 1997—

**Ship Operations.** Request brochure NSF 94-124 (available from the program), Instructions for Preparation of Proposals Requesting Support for Oceanographic Facilities. Contact Dr. Emma Dieter in the Division of Ocean Sciences by phone, 306-1576, or by e-mail, [edieter@nsf.gov](mailto:edieter@nsf.gov). [PT.18,34; K.W.1008003.]

**Shipboard Technicians.** Request brochure NSF 94-124 (available from the program), Instructions for Preparation of Proposals Requesting Support for Oceanographic Facilities. Contact Dr. Alexander Shor in the Division of Ocean Sciences by phone, 306-1581, or by e-mail, [ashor@nsf.gov](mailto:ashor@nsf.gov). [PT.18,34; K.W.1008003.]

### October 15, 1997—

**Global Learning and Observations to Benefit the Environment (GLOBE).**

Request brochure NSF 97-129 (available from the program), 1997 Announcement of Opportunity for Science/Education Teams. Contact Dr. Paul Filmer in the Office of the Assistant Director for Geosciences by phone, 306-1515, or by e-mail, [globe@nsf.gov](mailto:globe@nsf.gov). [PT.34; K.W.0502015, 0502043,1001000,1002000,1007000.]

### November 1, 1997—

**Active Tectonics.** (Brochure NSF 95-137.) Contact Dr. Robert Wintsch in the Division of Earth Sciences by phone, 306-1552, or by e-mail, [rwintsch@nsf.gov](mailto:rwintsch@nsf.gov). [PT.34; K.W.1005024.]

**Earth Sciences Postdoctoral Research Fellowships.** (Brochure NSF 93-93.)

Contact Dr. Michael Mayhew in the Division of Earth Sciences by phone, 306-1557, or by e-mail, [mmayhew@nsf.gov](mailto:mmayhew@nsf.gov). [PT.22,34; K.W.1005000.]

## December 1, 1997—

**Division of Earth Sciences. In the Geology and Paleontology Program**, contact Dr. John Maccini or Dr. Christopher Maples by phone, 306-1551, or by e-mail, jamaccin@nsf.gov or cmaples@nsf.gov; in the **Geophysics Program**, contact Ms. Robin Reichlin or Dr. James Whitcomb by phone, 306-1556, or by e-mail, rreichli@nsf.gov or jwhitcom@nsf.gov; in the **Hydrologic Sciences Program**, contact Dr. L. Douglas James by phone, 306-1549, or by e-mail, ldjames@nsf.gov; in the **Petrology and Geochemistry Program**, contact Dr. Sonia Esperanca or Dr. Maryellen Cameron by phone, 306-1554, or by e-mail, sesperan@nsf.gov or mcameron@nsf.gov; and in the **Tectonics Program**, contact Dr. Thomas Wright or Dr. Robert Wintsch by phone, 306-1552, or by e-mail, twright@nsf.gov or rwintsch@nsf.gov. Descriptions of programs are contained in Earth Sciences Research at the NSF (NSF 96-50). [PT.34; K.W. 1005002,1005005,1005013,1005017,1005019,1005024,1013009.]

## DATE TO BE ANNOUNCED—

**Cooperative Studies of the Earth's Deep Interior.** (Brochure NSF 95-155.) Contact Ms. Robin Reichlin in the Division of Earth Sciences by phone, 306-1556, or by e-mail, rreichli@nsf.gov. [PT.34; K.W.1005000.]

## TARGET DATES:

### September 1, 1997—

**Oceanographic Instrumentation.** Request brochure NSF 94-124 (available from the program), Instructions for Preparation of Proposals Requesting Support for Oceanographic Facilities. Contact Dr. Alexander Shor in the Division of Ocean Sciences by phone, 306-1581, or by e-mail, ashor@nsf.gov. [PT.34; K.W.1008000,1014001.]

**Shipboard Scientific Support Equipment.** Request brochure NSF 94-124 (available from the program), Instructions for Preparation of Proposals Requesting Support for Oceanographic Facilities. Contact Dr. Richard West in the Division of Ocean Sciences by phone, 306-1576, or by e-mail, rwest@nsf.gov. [PT.34; K.W.1014001.]

### October 15, 1997—

**Geospace Environment Modelling (GEM)—Division of Atmospheric Sciences.** (Contact program for brochure.) Grants are for studying boundary processes through the magnetosphere to the dayside ionosphere as well as substorms and magnetotail processes. Contact Dr. C. Robert Clauer in the Magnetospheric Physics Program by phone, 306-1519, or by e-mail, rclauer@nsf.gov. [PT.34; K.W.1001000.]

### November 1, 1997—

**Radiative Inputs from the Sun to the Earth (SunRISE).** (Contact program for brochure.) Support for studies to characterize, through observation, interpretation, and analysis, the variations in the radiative component of the solar output that lead to changes in the Earth's atmosphere and its environment. Contact Dr. Kenneth Schatten in the Solar-Terrestrial Research Program by phone, 306-1530, or by e-mail, kschatte@nsf.gov; Division of Atmospheric Sciences. [PT.34; K.W.1001000,1015210,1015420.]

### December 1, 1997—

**Division of Atmospheric Sciences.** Supports research that requires National Center for Atmospheric Research (NCAR) or university-based national facilities for the period October 1, 1998, through April 1, 1999. Contact Mr. Kenneth Van Sickle by phone, 306-1526, or by e-mail, kvansick@nsf.gov. [PT.34; K.W.1001000.]

## Mathematical and Physical Sciences

CFDA #47.049

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the MPS Directorate Home Page (<http://www.nsf.gov/mps/>) on the Web.

## PROGRAM DEADLINES:

### September 8, 1997—

**Stellar Astronomy and Astrophysics (SAA).** Contact Dr. Eileen Friel in the Division of Astronomical Sciences by phone, 306-1825, or by e-mail, efriel@nsf.gov. [PT.34; K.W.1013003,1013008.]

### September 12, 1997—

**Materials Research Science and Engineering Centers (MRSECs).** Pre-proposals Due. An open competition for MRSECs is planned for fiscal year 1998. Current information is available at the MRSEC Web Site on the MPS Directorate Home Page (see beginning of this section for Web address). Contact Dr. Carmen Huber by e-mail, chuber@nsf.gov, or by phone, 306-1996; or Dr. Ulrich Strom by e-mail, ustrom@nsf.gov, or by phone, 306-1832; Division of Materials Research. [PT.04,34; K.W.1009000.]

### September 15, 1997—

**Research Experiences for Undergraduates (REU)—Sites.** REU Supplements may be requested at any time, preferably early in the fiscal year which begins in October. Contact Dr. James Wright in the Division of Astronomical Sciences by phone, 306-1819, or by e-mail, jwright@nsf.gov. [PT.34; K.W.0505015.]

### October 1, 1997—

**Galactic Astronomy (GAL).** Contact Dr. Vernon Pankonin in the Division of Astronomical Sciences by phone, 306-1826, or by e-mail, vpankoni@nsf.gov. [PT.34; K.W.1013002.]

## October 15, 1997—

**Planetary Astronomy (PLA).** Contact Dr. Vernon Pankonin in the Division of Astronomical Sciences by phone, 306-1826, or by e-mail, vpankoni@nsf.gov. [PT.34; K.W.1013002,1013030.]

## November 1, 1997—

**Instrumentation for Materials Research.** (Brochure NSF 94-108.) Please check the Division of Materials Research Home Page (on the MPS Directorate Home Page) for a possible change in deadline (see beginning of this section for Web address). Contact Dr. Lorretta Inglehart in the Division of Materials Research by e-mail, lingleha@nsf.gov, or by phone, 306-1817. [PT.18,34; K.W.1009000.]

## November 3, 1997—

**Extragalactic Astronomy and Cosmology (EXC).** Contact Dr. Susan Kayser in the Division of Astronomical Sciences by phone, 306-1833, or by e-mail, skayser@nsf.gov. [PT.34; K.W.1013002.]

## TARGET DATES:

### October 1, 1997—

**Division of Chemistry.** Proposals submitted to the division should use this target date. However, those submitted in response to a program announcement should use the date in the announcement. Contact the Division of Chemistry at 306-1840. [PT.34; K.W.1003000.]

### October 8, 1997—

**Gravitational Physics.** (See Dear Colleague Letter, NSF 96-25.) Contact Dr. David Berley or Dr. Richard Isaacson in the Division of Physics by phone, 306-1890, or by e-mail, dberley@nsf.gov or isaacson@nsf.gov. [PT.34; K.W.1013018.]

**Gravitational Physics, Experiment, and Theory.** (See Dear Colleague Letter, NSF 97-86.) Contact Dr. Arthur

Komar in the Division of Physics by phone, 306-1890, or by e-mail, akomar@nsf.gov. [PT.34; K.W.1010000.]

**Mathematical Physics.** (See Dear Colleague Letter, NSF 97-86.) Contact Dr. Virginia Brown in the Division of Physics by phone, 306-1890, or by e-mail, vbrown@nsf.gov. [PT.34; K.W.1010000.]

**Nuclear Theory.** (See Dear Colleague Letter, NSF 97-86.) Contact Dr. Virginia Brown in the Division of Physics by phone, 306-1890, or by e-mail, vbrown@nsf.gov. [PT.34; K.W.1010000.]

## October 10, 1997—

**Division of Mathematical Sciences.** In the **Algebra and Number Theory Program**, contact Dr. Sidney Graham at 306-1884, or Dr. Ann Boyle at 306-1875; and in the **Analysis Program**, contact Dr. Joe Jenkins at 306-1879. [PT.34; K.W.1010000.]

## October 15, 1997—

**Condensed Matter Physics.** Contact Dr. Jean Toulouse by e-mail, jtoulous@nsf.gov, or by phone, 306-1818; or Dr. Edward Wolf by e-mail, ewolf@nsf.gov or by phone, 306-1995; Division of Materials Research. [PT.34; K.W.1013006,1013018.]

## October 29, 1997—

**AMOP Theory.** (See Dear Colleague Letter, NSF 97-86.) Contact Dr. Barry Schneider in the Division of Physics by phone, 306-1890, or by e-mail, bschneid@nsf.gov. [PT.34; K.W.1010000.]

**Astrophysics Theory.** (See Dear Colleague Letter, NSF 97-86.) Contact Dr. Boris Kayser in the Division of Physics by phone, 306-1890, or by e-mail, bkayser@nsf.gov. [PT.34; K.W.1010000.]

**Elementary Particle Theory.** (See Dear Colleague Letter, NSF 97-86.) Contact Dr. Boris Kayser in the Division of

Physics by phone, 306-1890, or by e-mail, bkayser@nsf.gov. [PT.34; K.W.1010000.]

**Special Programs and Conferences.** (See Dear Colleague Letter, NSF 96-25.) Contact Dr. Rolf Sinclair in the Division of Physics by phone, 306-1809, or by e-mail, rsinclair@nsf.gov. [PT.34; K.W.1010000.]

## November 1, 1997—

**Materials Theory.** Contact Dr. Bruce Taggart by phone, 306-1834, or by e-mail, gtaggart@nsf.gov; or Dr. Pradeep Kumar by phone, 306-1997, or by e-mail, pkumar@nsf.gov; Division of Materials Research. [PT.34; K.W.1009000.]

**Metals, Ceramics, and Electronic Materials.** Contact Dr. Bruce MacDonald by phone, 306-1835, or by e-mail, bmacdona@nsf.gov; Dr. Liselotte Schioler by phone, 306-1836, or by e-mail, lschioler@nsf.gov; or Dr. Verne Hess by phone, 306-1837, or by e-mail, lhess@nsf.gov; Division of Materials Research. [PT.34; K.W.1009001,1016075,1240015.]

**Solid-State Chemistry and Polymers.** Contact Dr. David Nelson by phone, 306-1838, or by e-mail, dnelson@nsf.gov; or Dr. Andrew Lovinger by phone, 306-1839, or by e-mail, alovinge@nsf.gov; Division of Materials Research. [PT.34; K.W.1009000.]

## November 7, 1997—

**Division of Mathematical Sciences.** In the **Applied Mathematics Program**, contact Dr. Deborah Lockhart at 306-1882; in the **Geometric Analysis Program**, contact Dr. Christopher Stark at 306-1881; in the **Topology and Foundations Program**, contact Dr. Ralph Krause at 306-1886, or Dr. Beverly Diamond at 306-1887; and in the **Statistics and Probability Program**, contact Dr. Keith Crank at 306-1885. [PT.34; K.W.1010000.]

## November 12, 1997—

**Atomic, Molecular, Optical, and Plasma Physics.** (See Dear Colleague Letter, NSF 96-25.) Contact Dr. Denise Caldwell or Dr. Barry Schneider in the Division of Physics by phone, 306-1890, or by e-mail, dcaldwel@nsf.gov or bschneid@nsf.gov. [PT.34;K.W.1013018, 1013019,1013025,1250040.]

**Elementary Particle Physics.** (See Dear Colleague Letter, NSF 96-25.) Contact Dr. Marvin Goldberg or Dr. Patricia Rankin in the Division of Physics by phone, 306-1890, or by e-mail, mgoldeber@nsf.gov or prankin@nsf.gov. [PT.34; K.W.1010000.]

**Nuclear Physics.** (See Dear Colleague Letter, NSF 96-25.) Contact Dr. John Lightbody in the Division of Physics by phone, 306-1806, or by e-mail, jwlightb@nsf.gov. [PT.34; K.W. 1013018.]

## November 19, 1997—

**Experimental Nuclear and Particle Physics.** (See Dear Colleague Letter, NSF 97-86.) Contact Dr. John Lightbody in the Division of Physics by phone, 306-1890, or by e-mail, jwlightb@nsf.gov. [PT.34; K.W.1010000.]

## December 4, 1997—

**Division of Mathematical Sciences.** In the **Mathematical Biology Program**, contact Dr. Michael Steuerwalt at 306-1878; and in the **Computational Mathematics Program**, contact Dr. John Strikwerda at 306-0565, ext. 1977. [PT.34; K.W.1010000.]

## Office of Polar Programs

CFDA #47.078

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the OPP Home Page (<http://www.nsf.gov/od/opp/>) on the Web.

## PROGRAM DEADLINES:

### December 15, 1997—

**Arctic Research.** (Brochure NSF 95-133.) This brochure describes the Foundation's Arctic Research Program and other opportunities for Foundation support of arctic research. Contact the Office of Polar Programs at 306-1029. [PT.34; K.W. 0111001,1008020.]

## TARGET DATES:

### December 15, 1997—

**Arctic Social Sciences.** (Brochure NSF 95-133.) Contact Dr. Carole Seyfrit in the Office of Polar Programs by phone, 306-1029, or by e-mail, cseyfrit@nsf.gov. [PT.34; K.W. 0111001,1008020.]

**Arctic System Sciences.** (Brochure NSF 95-133.) Contact Dr. Michael Ledbetter in the Office of Polar Programs by phone, 306-1029, or by e-mail, mledbett@nsf.gov. [PT.34; K.W.0111001,1008020.]

## Social, Behavioral, and Economic Sciences

CFDA #47.075

Further information on the programs in this section can be found in the NSF Guide to Programs (NSF 97-30, in revision), or on the SBE Directorate Home Page (<http://www.nsf.gov/sbe/>) on the Web.

## PROGRAM DEADLINES:

### September 1, 1997—

**Cooperative Activities with Africa, the Near East, and South Asia.** Semi-Annual Deadline. (Brochure NSF 96-14.) Cooperative research, dissertation enhancement, and joint workshops involving partners in countries in these regions. Planning visit proposals may be submitted at any time but should be discussed with the

program manager first. U.S. faculty advisors may apply for dissertation enhancement awards to support graduate students who are enrolled at U.S. universities and wish to conduct research in most of these countries. Contact the Division of International Programs by phone, 306-1707, or by e-mail, intpubs@nsf.gov. [PT.34,40,42; K.W.0101000, 0103000,0103003,0103007.]

## Medium- and Long-Term Visits in Japan for U.S. Researchers.

Annual Deadline. (Brochure NSF 96-14.) NSF cooperates with the Japan Foundation Center for Global Partnership in the administration of this program. Visits ranging from 3 to 24 months are supported for research at Japanese facilities. Contact the Division of International Programs by phone, 306-1701, or by e-mail, jkpinfo@nsf.gov. [PT.34; K.W.0112070.]

## September 15, 1997—

**Research Experiences for Undergraduates (REU) Sites.** (Brochure NSF 96-102.) Contact Ms. Bonney Sheahan in the Division of Social, Behavioral, and Economic Research by phone, 306-1733, or by e-mail, bsheahan@nsf.gov. [PT.34,44; K.W. 0505015.]

## October 15, 1997—

**Geography and Regional Science.** (Brochure NSF 92-114.) Contact Dr. J.W. Harrington or Dr. Thomas Leinbach in the Division of Social, Behavioral, and Economic Research by phone, 306-1754, or by e-mail, jwharrin@nsf.gov or tleinbac@nsf.gov. [PT.34,40; K.W.0112000,0409000.]

**Sociology—Doctoral Dissertation Improvement Awards.** (Brochure NSF 91-114.) Contact Dr. William Bainbridge or Dr. Patricia White in the Division of Social, Behavioral, and Economic Research by phone, 306-1756, or by e-mail, wbainbri@nsf.gov or pwhite@nsf.gov. [PT.34,40; K.W. 0417000.]

## November 1, 1997—

**Cooperative Science Programs with Argentina, Brazil, Chile, Mexico, and Venezuela.** Semi-Annual Deadline. (Brochure NSF 96-14.) Supports cooperative research, joint workshops, dissertation improvement grants, and program planning visits. For collaborative research projects and workshops, the foreign counterpart or counterparts must submit a parallel proposal to a counterpart agency in the host country. Contact the Division of International Programs by phone, 306-1706, or by e-mail, [krbrown@nsf.gov](mailto:krbrown@nsf.gov). [PT.34,40,42; K.W. 0112005,0112017,0112026,0112089,0112147.]

**International Research Fellow Awards (formerly Postdoctoral and Junior Investigator Research Fellowship Program).** Annual Deadline Date for All Countries. (Brochure NSF 96-14.) Open to U.S. citizens and permanent residents who have earned a doctoral degree during the 6 years prior to the date of application (for applicants for Mexico, 10 years) or who expect to receive a doctoral degree by the award date. Applications for work in developing countries are especially encouraged. For Japan, see listing below. For all other countries, contact the Division of International Programs by phone, 306-1706 or 306-1710, or by e-mail, [sparris@nsf.gov](mailto:sparris@nsf.gov). [PT.22,34; K.W. 0112000,0113003.]

**Japan International Research Fellow Awards (formerly Japan Postdoctoral and Junior Investigator Fellowship Program).** Annual Deadline. (Brochure NSF 96-14.) NSF coordinates with the Japan Society for the Promotion of Science, the Science and Technology Agency of Japan, and the Japan Foundation Center for Global Partnership to place U.S. researchers in Japanese university, government, and corporate laboratories for periods of 3 to 24 months. Contact the Division of International Programs by phone, 306-1701, or by e-mail, [jkpinfo@nsf.gov](mailto:jkpinfo@nsf.gov). [PT.22,34; K.W. 0112000,0112070.]

## November 15, 1997—

**U.S.-Israel Binational Science Foundation (BSF).** Proposals should not be submitted to NSF; send to BSF Jerusalem. A brochure with information about the program and the types of research it supports is available on the Web at <http://www.bsf.org.il>. Contact the Division of International Programs by phone, 306-1707, or by e-mail, [tlbutler@nsf.gov](mailto:tlbutler@nsf.gov). [PT.34; K.W. 0112066.]

## December 1, 1997—

**Summer Programs in Japan and Korea.** Annual Deadline. (Brochure NSF 96-151.) Program for U.S. science and engineering graduate students to intern at Japanese and Korean research labs and receive language instruction. Contact the Division of International Programs by phone, 306-1701, or by e-mail, [jkpinfo@nsf.gov](mailto:jkpinfo@nsf.gov). [PT.34,44; K.W.0112070,0410001.]

## December 1, 1997—

**U.S.-Egypt Collaborative Research in Science and Technology.** (Brochure available in electronic format only.) Awards are limited to international travel, living expenses, and research costs by visiting researchers (up to \$50,000) and will not cover researchers' salaries in either country. Activities should encourage industry participation or identify future benefits to industry or the private sector in Egypt. Applications must be submitted jointly by a U.S. researcher and by an Egyptian counterpart or counterparts. For further information, contact Dr. Osman Shinaishin in the Division of International Programs by phone, 306-1707, or by e-mail, [oshinaish@nsf.gov](mailto:oshinaish@nsf.gov). [PT.34; K.W.0112040.]

## December 5, 1997—

**Minority Postdoctoral Research Fellowships and Supporting Activities.** (Brochure NSF 94-133.) Contact Ms. Bonney Sheahan in the Division of Social, Behavioral, and Economic

Research by phone, 306-1733, or by e-mail, [bsheahan@nsf.gov](mailto:bsheahan@nsf.gov). [PT. 22,34;FF.]

## TARGET DATES:

### October 1, 1997—

**Western European Cooperative Programs.** (Brochure NSF 96-14.) Supports cooperative research, joint workshops, and dissertation research enhancement awards involving partners in any country of Western Europe except France and Germany. Those cooperative programs have an annual deadline of June 15. For further information, contact a program manager for the Western Europe Program in the Division of International Programs at 306-1702. Note: U.S.-Germany cooperative research with German institutions other than universities may be considered under the Western Europe Cooperative Programs. For further information on the U.S.-Germany Program, contact Dr. Mark Suskin by phone, 306-1702, or by e-mail, [msuskin@nsf.gov](mailto:msuskin@nsf.gov). [PT.34,40,42; K.W.0104006,0112050.]

### October 31, 1997—

**Archaeometry Competition.** (Contact program for more information.) Contact Dr. John Yellen in the Division of Social, Behavioral, and Economic Research by phone, 306-1759, or by e-mail, [jyellen@nsf.gov](mailto:jyellen@nsf.gov). [PT.34; K.W. 0402000.]

### November 1, 1997—

**Cooperative Research Programs with the Americas.** (Brochure NSF 96-14.) Supports cooperative research, workshops, program planning visits, and dissertation improvement awards to conduct research in most of the countries in the Americas. Contact the Division of International Programs by phone, 306-1706, or by e-mail, [krbrown@nsf.gov](mailto:krbrown@nsf.gov). [PT.34,40,42; K.W.0113005.]

## December 1, 1997—

**Archaeology.** (Brochure NSF 90-93.) Contact Dr. John Yellen in the Division of Social, Behavioral, and Economic Research by phone, 306-1759, or by e-mail, jyellen@nsf.gov. [PT.34; K.W. 0402000.]

**Cultural Anthropology.** (Brochure NSF 90-93.) Contact Dr. Stuart Plattner in the Division of Social, Behavioral, and Economic Research by phone, 306-1758, or by e-mail, splattne@nsf.gov. [PT.34; K.W.0401001.]

**Physical Anthropology.** (Brochure NSF 90-93.) Contact Dr. Dennis O'Rourke in the Division of Social, Behavioral, and Economic Research by phone, 306-1758, or by e-mail, dorourke@nsf.gov. [PT.34; K.W.0401002.]

## POSITIONS OPEN FOR

- ✓ PROGRAM DIRECTOR
- ✓ ASSOCIATE PROGRAM DIRECTOR
- ✓ ASSISTANT PROGRAM DIRECTOR

The positions listed in this section do not necessarily represent all current vacancies at NSF. See the section below titled "Vacancy Hotline" for information on how to get a complete list of posted vacancies.

Many divisions and offices accept applications for rotational positions year-round without formal advertisements. To apply for such a position, send a resume to the appropriate division with a cover letter explaining your interest.

The positions listed here are excepted from the competitive civil service and may be filled (a) on a permanent basis; (b) as a 1- or 2-year Visiting Scientist, Engineer, or Educator (VSEE); or (c) on a temporary basis in the fall of 1997. Alternatively, these positions may be filled under the Intergovernmental Personnel Act (IPA). IPA applicants must be permanent career employees of their

current employer (which must be an eligible organization) for at least 90 days before entering into a mobility assignment agreement with a federal agency. The following information includes the salary and qualifications for each type of position listed in this section.

- **Program Director—Level 4:** Per annum salary ranges from \$64,555 to \$100,611.  
**Qualifications Required:** Ph.D. in a related field plus 6 (or more) years of research or equivalent experience beyond the Ph.D.
- **Associate Program Director—Level 3:** Per annum salary ranges from \$54,629 to \$86,059.  
**Qualifications Required:** Ph.D. in a related field plus 4 (or more) years of research or equivalent experience beyond the Ph.D.
- **Assistant Program Director—Level 2:** Per annum salary ranges from \$38,330 to \$71,017.  
**Qualifications Required:** Ph.D. or master's degree in a related field plus 2 (or more) years of research or equivalent experience beyond the degree.

**Duties and Responsibilities:** All of these positions involve proposal evaluation, project development and support, scientific planning, program planning and budgeting, and related administrative duties.

To apply, applicants must submit a resume or other application form of their choice and a letter or letters of recommendation. Your application must specify the job title and grade of the position you are applying for and should include the following information: your country of citizenship; information about your education, including your major and type(s) and

year(s) of degree(s); and complete information about your experience related to this job, including job titles, duties and accomplishments, employer's name and phone number, number of hours worked per week, starting and ending dates and year, and salary. If you have held various positions with the same employer, describe each separately. Submit all application material to the National Science Foundation, Division of Human Resource Management, Room 315, 4201 Wilson Boulevard, Arlington, VA 22230. For additional information or to obtain the closing date for an announcement, call (703) 306-1182, ext. 3048. Hearing-impaired individuals should call TDD, (703) 306-0189.

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### VACANCY HOTLINE

NSF offers a Vacancy Hotline that lists current vacancies. The Hotline number locally is (703) 306-0080; outside the Washington, DC, metropolitan area, call 1-800-628-1487. Hearing-impaired individuals should call TDD, (703) 306-0189.

### DIRECTORATE FOR ENGINEERING (ENG)

**Position and Location:** A Nationwide search is being conducted for engineers to fill Program Director positions in the Environmental Technology; Materials Processing and Manufacturing; Systems in Civil Engineering; Structural Reliability and Loads; Integration Engineering; and Small Business Innovation Research Programs.

**Contact:** Applications and nominations for these positions should be directed to the relevant division member of the Personnel Search Committee (listed below). Formal consideration of applications will continue until successful candidates have been identified.

—For **Environmental Technology**, contact Dr. Fred Bowman (Rm. 565) by phone, 306-1320, or by e-mail, fbowman@nsf.gov.

—For **Chemical and Transport Systems**, contact Dr. Roger Arndt (Rm. 525) by phone, 306-1371, or by e-mail, ramdt@nsf.gov.

—For **Systems in Civil Engineering; and Structural Reliability and Loads**, contact Dr. Devendra Garg (Rm. 545) by phone, 306-1361, or by e-mail, dgarg@nsf.gov.

—For **Integration Engineering; Materials Processing and Manufacturing; and Small Business Innovation Research**

**Programs**, contact Dr. Jay Lee (Rm. 550) by phone, 306-1330, or by e-mail, jalee@nsf.gov.

—For **Electrical and Communications Systems**, contact Dr. George Lea (Rm. 675) by phone, 306-1339, or by e-mail, glea@nsf.gov.

—For **Engineering Education and Centers**, contact Dr. John Hurt (Rm 585) by phone, 306-1380, or by e-mail, jhurt@nsf.gov.

#### **DIRECTORATE FOR GEOSCIENCES (GEO)**

**Position and Location:** Program Director in the Atmospheric Chemistry and Physical Meteorology Programs; Division of Atmospheric Sciences (ATM).

**Contact:** In ATM, Dr. Jarvis Moyers, Section Head, Lower Atmosphere Research Section, 306-1523.

**To Submit:** Send applications to the attention of Ms. Catherine Handle, or contact her for additional information at 306-1185, ext. 3027.

• • • •

**Position and Location:** Associate Program Director in the Atmospheric Chemistry and Physical Meteorology Programs; Division of Atmospheric Sciences (ATM).

**Contact:** In ATM, Dr. Jarvis Moyers, Section Head, Lower Atmosphere Research Section, 306-1523.

**To Submit:** Send applications to the attention of Ms. Catherine Handle, or contact her for additional information at 306-1185, ext. 3027.

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## **STAFF CHANGES**

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**Bernard O. Bauer** to Program Director for the Geography and Regional Science Program, Division of Social, Behavioral, and Economic Research, 306-1754.

**Donald M. Burland** to Executive Officer for the Division of Chemistry, Directorate for Mathematical and Physical Sciences, 306-1840.

**Emmeline Edwards** to Program Director for Behavioral Neuroscience in the Neuroscience Program, Division of Integrative Biology and Neuroscience, 306-1416.

**Thomas M. Frost** to Program Director for the Ecological Studies Program, Division of Environmental Biology, 306-1479.

**David M. Gibbons** to Director for the Budget Division, Office of Budget, Finance, and Award Management, 306-1260.

**Daniel Hartline** to Program Director for Computational Neuroscience in the Neuroscience Program, Division of Integrative Biology and Neuroscience, 306-1416.

**Bruce P. Hayden** to Director for the Division of Environmental Biology, Directorate for Biological Sciences, 306-1480.

**Sethanne Howard** to Program Director for the Extragalactic Astronomy and Cosmology Program, Division of Astronomical Sciences, 306-1827.

**Tien-Pei Lee** to Program Director for the Physical Foundations for Enabling Technologies Program, Division of Electrical and Communications Systems, 306-1339.

**James W. Mahaffey** to Program Director for the Animal Development Program, Division of Integrative Biology and Neuroscience, 306-1417.

**Richard K. Marcus** to Program Officer for the Analytical and Surface Chemistry Program, Division of Chemistry, 306-1852.

**Joel W. Martin** to Program Director for the Biotic Surveys and Inventories Program, Division of Environmental Biology, 306-1483.

**Timothy A. Mousseau** to Program Director for the Life Histories and Population Dynamics Program, Division of Environmental Biology, 306-1481.

**Erik T. Nilsen** to Program Director for the Animal Systems Physiology Program, Division of Integrative Biology and Neuroscience, 306-1421.

**Bruce P. Palka** to Program Director for the Analysis Program, Division of Mathematical Sciences, 306-1994.

**Celeste M. Rohlifing** to Program Director for the Theoretical and Computational Chemistry Program, Division of Chemistry, 306-1846.

**Lawrence M. Seiford** to Program Director for the Operations Research and Production Systems Program, Division of Design, Manufacture, and Industrial Innovation, 306-1395.



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Requests for publications can also be made by fax, (703) 644-4278; by e-mail, [pubs@nsf.gov](mailto:pubs@nsf.gov); or by voice-mail, (703) 306-1130. Requests must include the NSF publication number, the title, the number of copies needed, your name, and a complete mailing address.

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Check:

- NSF 94-79. Research in Undergraduate Institutions (Faculty Research Projects; Research Instrumentation Grants; Research Opportunity Awards).
- NSF 94-133. Minority Postdoctoral Research Fellowships and Supporting Activities.
- NSF 94-147. Research Planning Grants and Career Advancement Awards for Minority Scientists and Engineers.
- NSF 96-1. NSF Annual Report, FY 1994-95 (printed as an insert in the July/August 1996 issue of Frontiers).
- NSF 96-14. Division of International Programs (Program Announcement).
- NSF 96-50. Earth Sciences Research at the NSF (Program Descriptions).
- NSF 96-74. Institution-Wide Reform of Undergraduate Education in Science, Mathematics, Engineering, and Technology (Program Announcement and Guidelines).
- NSF 96-93. Antarctic Research Program Announcement and Proposal Guide.
- NSF 96-102. Research Experiences for Undergraduates.
- NSF 96-116. Collaborative Research at Undergraduate Institutions Program.
- NSF 96-126. Synergy: Reforming Undergraduate Education.
- NSF 96-146. Teacher Preparation and NSF Collaboratives for Excellence in Teacher Preparation (Awards Directory).
- NSF 97-20. Elementary, Secondary, and Informal Education (Program Announcement and Guidelines).
- NSF 97-29. Division of Undergraduate Education (Program Announcement and Guidelines).
- NSF 97-30. NSF Guide to Programs, FY 1997.
- NSF 97-37. Synergy: Shaping the Future of Undergraduate Education.
- NSF 97-71. NSF Announces Awards for Undergraduate Course and Curriculum Development Program: FY 1996.
- NSF 97-72. Undergraduate Course and Curriculum Development Program: FY 95 Awards.
- NSF 97-83. Guide to Proposal Writing (for DUE programs).
- NSF 97-87. Faculty Early Career Development Program Guidelines.
- NSF 97-91. Professional Opportunities for Women in Research and Education.
- NSF 97-306. Science and Engineering State Profiles: Fall 1996 (Report).
- NSF 97-309. Total Stock of Academic Research Instruments Tops \$6 Billion in 1995 (Data Brief). (Only available from the SRS Division, Room 965; call 306-1780).

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September 1997

NSF Bulletin

Volume 25, No. 1

PT. 04,18,22,25,26,34,42,48;DD,FF,II  
K.W.0112000,0400000,0408000,0500000,0600000,  
1000000,1001000,1002000,1004000,1005000,  
1008003,1010000,1013000

ISSN 0145-0670