

Office of Science
Notice DE-FG01-05ER05-24

Office of Nuclear Physics
Outstanding Junior Investigator Program

Department of Energy

Office of Science Financial Assistance Program Notice
DE-FG01-05ER05-24: Office of Nuclear Physics Outstanding Junior Investigator Program

AGENCY: U.S. Department of Energy

ACTION: Notice inviting grant applications.

SUMMARY: The Office of Nuclear Physics of the Office of Science (SC), U.S. Department of Energy (DOE), invites grant applications for support under the Outstanding Junior Investigator (OJI) Program in nuclear physics. The purpose of this program is to support the development of individual research programs of outstanding scientists early in their careers. Applications should be from tenure-track faculty who are currently involved in experimental or theoretical nuclear physics research, the U.S Nuclear Data Program (USNDP) or accelerator physics research related to nuclear physics projects, and should be submitted through a U.S. academic institution. Applicants must be no more than ten (10) years beyond the Ph.D. at the time of application.

RESEARCH AREAS: OJI research applications should be clearly aligned with at least one of the following Office of Nuclear Physics long term performance measures, or to any of the areas identified in the most recent Nuclear Physics Long Range Plan, and be able to contribute to its overall progress:

- Make precision measurements of fundamental properties of the proton, neutron and simple nuclei for comparison with theoretical calculations to provide a quantitative understanding of their quark substructure.
- Recreate brief, tiny samples of hot, dense nuclear matter to search for the quark-gluon plasma and characterize its properties.
- Investigate new regions of nuclear structure, study interactions in nuclear matter like those occurring in neutron stars, and determine the reactions that created the nuclei of atomic elements inside stars and supernovae.
- Measure fundamental properties of neutrinos and fundamental symmetries by using neutrinos from the sun and nuclear reactors and by using radioactive decay measurements.
- Contribute to the theoretical understanding of any of the above.

DATES: A Letter-of-Intent (LOI), comprising information on collaborators and a one-page summary of the proposed research, is strongly encouraged (but not required) and should be

submitted by September 19, 2005, directly to the Office of Nuclear Physics at the address listed below.

Formal applications submitted in response to this notice must be received by 8:00 p.m. Eastern time, November 8, 2005, to permit timely consideration of awards in Fiscal Year 2006.

ADDRESSES: A Letter-of-Intent referencing Program Notice DE-FG01-05ER05-24, should be sent to Dr. Sidney A. Coon by e-mail: Sidney.A.Coon@science.doe.gov. Please include the phrase "OJI Letter-of-Intent" in the subject line of the e-mail.

Formal Applications

Applications submitted to the Office of Science must be submitted electronically through Grants.Gov to be considered for award. The Funding Opportunity Number is: DE-FG01-05ER05-24 and the CFDA Number for the Office of Science is: 81.049. Instructions and forms are available on the [Grants.Gov](#) website. Please see the information below and also refer to the "Funding Opportunity Announcement", Part IV - Application and Submission Information; H. Other Submission and Registration Requirements for more specific guidance on "Where to Submit" and "Registration Requirements." If you experience problems when submitting your application to Grants.gov, please visit their customer support website: <http://www.grants.gov/CustomerSupport>; email: support@grants.gov; or call 1-800-518-4726.

Registration Requirements: There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider and register with [Grants.Gov](#)). See <http://www.grants.gov/GetStarted>. Use the Grants.gov Organization Registration Checklist to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at **least 14 days** to complete these requirements. It is suggested that the process be started as soon as possible.

VERY IMPORTANT - Download PureEdge Viewer: In order to download the application package, you will need to install PureEdge Viewer. This small, free program will allow you to access, complete, and submit applications electronically and securely. For a free version of the software, visit the following Web site: <http://www.grants.gov/DownloadViewer>.

FOR FURTHER INFORMATION CONTACT: Dr. Sidney A. Coon, Office of Nuclear Physics, SC-26.1/Germantown Building, Office of Science, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, D.C. 20585-1290. Telephone: (301)903-3613. Fax: (301)903-3833. E-Mail address: Sidney.A.Coon@science.doe.gov.

SUPPLEMENTARY INFORMATION: This is the seventh year of an Outstanding Junior Investigator Program in Nuclear Physics. A principal goal of this program is to identify

exceptionally talented nuclear physicists early in their academic careers and to facilitate the development of their research programs. The proposed research is expected to make an important contribution to the vigor of the U.S. Nuclear Physics program.

Program Funding

It is anticipated that a total of up to \$300,000 will be available in Fiscal Year 2006 for funding the program. The DOE expects to make several awards for Fiscal Year 2006 by June 30, 2006, subject to availability of appropriated funds. The actual number of awards will be determined by the number of excellent applications and the total amount of funds available for this program. Awards would be for an initial three year term. At the end of the initial term, these grants may be renewed for a final two years, subject to appropriate external peer review at the time of renewal, as long as the recipient's tenure status is unchanged. Three awards were made in Fiscal Year 2005.

Guidelines for Preparation of Applications for the OJI Program

In addition to the information required by 10 CFR Part 605, the following elements are required.

Project Summary/Abstract (2 pages maximum)

The Project Summary/Abstract should provide:

- An abstract that should summarize the planned scope of work in 100 words or less, written at a level which a scientist outside the field would understand. This abstract will be used in an electronic compilation of work performed by DOE grantees for reference.
- A short summary of work to be accomplished. This discussion should include objectives, a description of the basic approach, and the potential impact.
- A list of personnel.

Project Description (20 pages maximum)

The Project Description should provide:

- A detailed discussion of the work to be undertaken. This should include a discussion of the objectives in relation to long-term goals, particularly in relationship to the NSAC Performance Measures and the Long Range Plan for Nuclear Physics.
- A discussion of the present state of knowledge of the field.
- A description of any other work by the PI not supported by this grant. In the case of an applicant who is already a part of a group funded by a federal agency, a clear description of how the work proposed is different from the work already supported is essential.
- A general plan of work for the activities to be undertaken over the grant period, and an adequate description of methodology and necessary resources to convince a reviewer of its feasibility.
- Necessary information that explicitly justifies the requested resources (manpower, equipment, travel, etc.).

- A description of institutional support and resources.
- A brief discussion of how the work will contribute to the education of students, if applicable, and identify any potential benefits to society. Include career history of recent research associates and graduate students.

Biographical Sketch (2 pages maximum)

The biographical sketch should provide:

- Applicant's name and position title and organization.
- Applicant's degrees, years and field of study for each academic degree
- A listing of research and professional positions, awards, and honors.
- References to all publications for the past three years along with any earlier publications pertinent to this application.

If this list causes the biographical sketch to exceed two pages, the applicant must select the most pertinent publications to stay within the page limit.

List of Collaborators

- A list of principal collaborators from the last four years.

General information about development and submission of applications, eligibility, limitations, evaluation and selection processes, and other policies and procedures are contained in the Application Guide for the Office of Science Financial Assistance Program and 10 CFR Part 605. Electronic access to the latest version of SC's Application Guide is possible via the Internet at the following web site address: <http://www.science.doe.gov/grants/>. DOE is under no obligation to pay for any costs associated with the preparation or submission of applications.

Merit Review

Applications will be subjected to scientific merit review (peer review) and will be evaluated against the following criteria, listed in descending order of importance as found in 10 CFR Part 605.10 (d), the Office of Science Research Financial Assistance Program:

1. Scientific and/or technical merit of the project;
2. Appropriateness of the proposed method or approach;
3. Competency of applicant's personnel and adequacy of proposed resources;
4. Reasonableness and appropriateness of the proposed budget.

Additional criteria, which will be considered: Future promise of the investigator, and the resources and interest of the sponsoring institution.

The Catalog of Federal Domestic Assistance number for this program is 81.049, and the solicitation control number is ERFAP 10 CFR Part 605.

Martin Rubinstein
Science Programs Support Division
Office of Science

Posted on the Office of Science Grants and Contracts Web Site
August 5, 2005.