

Office of Science
Notice DE-FG01-03ER03-25

Office of Nuclear Physics
Outstanding Junior Investigator Program

Department of Energy

Office of Science Financial Assistance Program Notice DE-FG01-03ER03-25; 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 Program (OJI) 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 (USDNP) program, or accelerator physics research and should be submitted through a U.S. academic institution.

DATES: To permit timely consideration of awards in Fiscal Year 2004, formal applications submitted in response to this notice must be received by November 11, 2003.

ADDRESSES: Formal applications in response to this solicitation are to be electronically submitted by an authorized institutional business official through DOE's Industry Interactive Procurement System (IIPS) at: <http://e-center.doe.gov/>. IIPS provides for the posting of solicitations and receipt of applications in a paperless environment via the Internet. In order to submit applications through IIPS your business official will need to register at the IIPS website. It is suggested that this registration be completed several days prior to the date on which you plan to submit the formal application. The Office of Science will include attachments as part of this notice that provide the appropriate forms in PDF fillable format that are to be submitted through IIPS. **IIPS offers the option of submitting multiple files—please limit submissions to only one file within the volume if possible, with a maximum of no more than four files.** Color images should be submitted in IIPS as a separate file in PDF format and identified as such. These images should be kept to a minimum due to the limitations of reproducing them. They should be numbered and referred to in the body of the technical scientific proposal as Color image 1, Color image 2, etc. Questions regarding the operation of IIPS may be e-mailed to the IIPS Help Desk at: helpdesk@pr.doe.gov or you may call the help desk at: (800) 683-0751. Further information on the use of IIPS by the Office of Science is available at: <http://www.sc.doe.gov/production/grants/grants.html>.

FOR FURTHER INFORMATION CONTACT: Dr. Sidney A. Coon, Office of Nuclear Physics, SC-90/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. The full text of Program Notice DE-FG01-03ER03-25 is available via the World Wide Web using the following web address: <http://www.sc.doe.gov/production/grants/grants.html>.

SUPPLEMENTARY INFORMATION: This is the fifth 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 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

The DOE expects to make several awards in Fiscal Year 2004; four awards were made in Fiscal Year 2003. The actual number of awards will be determined by the number of excellent applications and the total amount of funds available for this program. It is anticipated that a total of up to \$250,000 will be available in Fiscal Year 2004 for funding the program, subject to availability of appropriated funds, and that awards would be for three to five year terms. At the end of the initial term, these grants may be renewed, subject to appropriate external peer review at the time of renewal, as long as the recipient's tenure status is unchanged.

Research Areas

OJI research applications should be clearly aligned with at least one of the following Office of Nuclear Physics long-term performance measures 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.

Project Description

Project descriptions should be limited to a maximum of 20 pages (including text and figures) of technical information. In addition, please limit biographical and publication information for the principal investigator to no more than two pages each. Each principal investigator should provide

an E-mail address and a list of recent collaborators (i.e., within the last four years). In addition to the information required by 10 CFR Part 605 each application should contain the following items: (1) a succinct statement of the goal of the research, (2) a detailed research plan, (3) the specific results expected at the end of the project period, (4) an analysis of the adequacy of the budget, (5) a discussion of the impact of the proposed research on other fields of science, and (6) for projects requiring significant computational resources (e.g., at the National Energy Research Scientific Computing Center), an estimate and justification of the resources that will be required.

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 codified at 10 CFR Part 605.10 (d):

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. 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.sc.doe.gov/production/grants/grants.html>. DOE is under no obligation to pay for any costs associated with the preparation or submission of applications.

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

John Rodney Clark
Associate Director of Science
for Resource Management

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