

**Office of Science  
Financial Assistance  
Funding Opportunity Announcement  
DE-PS02-08ER08-31**

***Advanced Detector Research Program***

The Office of High Energy Physics of the Office of Science (SC), U.S. Department of Energy, hereby announces its interest in receiving grant applications for support under its Advanced Detector Research Program. Applications should be from investigators who are currently involved in experimental high energy physics, and should be submitted through a U.S. academic institution. The purpose of this program is to support the development of the new detector technologies needed to perform future high energy physics experiments.

**LETTER OF INTENT DUE DATE:** November 15, 2008

Applicants are requested to submit a Letter of Intent (LOI) which includes the title of the application, the name of the principal investigator(s), the requested funding, and a one-page abstract. Failure to submit a letter of intent will not negatively prejudice a responsive formal application submitted in a timely manner.

Letters of Intent referencing Funding Opportunity Announcement DE-PS02-08ER08-31 should be submitted via E-mail at the following E-mail address: Howard.Nicholson@science.doe.gov. Please include the phrase "ADR Letter of Intent" in the subject line.

**APPLICATION DUE DATE:** December 2, 2008, 8:00 pm, Eastern Time

Applications must be submitted using [Grants.gov](http://Grants.gov), the Funding Opportunity Announcement can be found using the CFDA Number, 81.049 or the Funding Opportunity Announcement number, **DE-PS02-08ER08-31**. Applicants must follow the instructions and use the forms provided on [Grants.gov](http://Grants.gov).

**GENERAL INQUIRIES ABOUT THIS NOTICE SHOULD BE DIRECTED TO:**

**Scientific/Technical Program Contact:**

**PROGRAM MANAGER:** Dr. Howard Nicholson, Office of High Energy Physics

**PHONE:** (301) 903-3367

**FAX:** (301) 903-2597

**E-MAIL:** Howard.Nicholson@science.doe.gov

**SUPPLEMENTARY INFORMATION:**

Future high energy physics accelerator based experiments will require higher performance detectors and data acquisition systems to exploit the higher beam energies and intensities of new

or upgraded accelerators. Higher performance and/or lower background detectors and data acquisition systems are also needed to probe for new physical processes in non-accelerator-based experiments. Proposed detector research should be driven by the anticipated needs of experiments to be built within the foreseeable future. Generic detector research that could be applied to upgrades that have not yet been approved would also be appropriate. It is expected that the final engineering or fabrication of detectors for specific experiments will not be funded by this program. Interesting technologies include, but are not limited to: low-mass, high channel density, radiation-hard charged particle tracking detectors; or calorimeters or particle identification detectors that are less susceptible to radiation damage, have higher resolution, are lower in cost, or can be read out faster than currently available detectors. Applications to develop detector technology that is targeted at experiments for energy frontier e<sup>+</sup>e<sup>-</sup> linear colliders, or detectors targeted for use in the proposed DUSEL underground facility should not be submitted under this Notice unless additional credible uses for the technology in particle physics experiments are described.

### **Collaboration**

Applicants are welcome to collaborate with researchers in other institutions, such as universities, industry, non-profit organizations, federal laboratories and Federally Funded Research and Development Centers (FFRDCs), which include the DOE National Laboratories. In the case of collaborative applications submitted from different institutions that are directed at a single research activity, each application must have a different scope of work and a qualified principal investigator who is responsible for the research effort being performed at his or her institution. There must be a single technical description of the proposed work, and separate face pages and budget pages for each institution. The scope of work at each institution must be clearly specified. While collaboration with researchers at FFRDCs (Fermi National Accelerator Lab and other DOE national labs are examples of FFRDCs), is encouraged, no funds will be provided to those organizations under this Notice. The procedure for submitting a collaborative application can be accessed via the web at: <http://www.science.doe.gov/grants/Colab.html>. This section provides specific details regarding collaborating institutions.

### **Program Funding**

It is anticipated that approximately \$550,000 will be available for new projects in Fiscal Year 2009, subject to availability of appropriated funds. The number of awards will depend on the number of meritorious applications and the availability of appropriated funds. Multiple year grants should be requested if the project cannot be completed in one year. A maximum of three years will be considered. Out-year funding will be provided on an annual basis subject to availability of funds. DOE is under no obligation to pay for any costs associated with preparation or submission of applications. DOE reserves the right to fund, in whole or in part, any, all, or none of the applications submitted.

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

Posted on the Office of Science Grants and Contracts Web Site  
September 17, 2008.