Internal Selection Procedures for
NSF 13-559 Physics Frontiers Centers (PFC)

Summary: The Physics Frontiers Centers (PFC) program supports university-based centers and institutes where the collective efforts of a larger group of individuals can enable transformational advances in the most promising research areas. The program is designed to foster major breakthroughs at the intellectual frontiers of physics by providing needed resources such as combinations of talents, skills, disciplines, and/or specialized infrastructure, not usually available to individual investigators or small groups, in an environment in which the collective efforts of the larger group can be shown to be seminal to promoting significant progress in the science and the education of students. Activities supported through the program are in all sub-fields of physics within the purview of the Division of Physics: atomic, molecular, optical, plasma, elementary particle, nuclear, astro-, gravitational, and biological physics. Interdisciplinary projects at the interface between these physics areas and other disciplines and physics sub-fields are also included, although the bulk of the effort should fall within one of those areas within the purview of the Physics Division. The successful PFC activity will demonstrate: (1) the potential for a profound advance in physics; (2) creative, substantive activities aimed at enhancing education, diversity, and public outreach; (3) potential for broader impacts, e.g., impacts on other field(s) and benefits to society; (4) a synergy or value-added rationale that justifies a center- or institute-like approach.

Limit on Number of Proposals per Organization: No more than two (2) preliminary proposals may be submitted by any one institution. The same limit applies to full proposals.

Limit on Number of Proposals per PI: Any one individual may be the Principal Investigator (PI) or co-PI (co-PI) for only one (1) preliminary proposal. The same limitation applies to full proposals. Individuals may be listed as participating senior investigators on more than one proposal.

Selection Process: The following procedures for an internal Notice of Intent (NOI) describe the process to select the proposal that will be submitted on behalf of the University. Should more than the allowable number of NOIs be received from across the University, they will be reviewed by the Office of the Vice President for Research (OVPR). The OVPR will notify each applicant whether or not their proposal has been selected to move forward and represent the University.

Proposal Schedule: Internal NOI due to OSP on 10 June 2013, 5:00 p.m. CDT
Notification of NOIs selected to move forward by 21 June 5:00 p.m. CDT
Preliminary Proposal due to OSP on 1 August 2013, 8:00 a.m. CDT
Preliminary Proposal due to NSF on 5 August 2013, 5:00 p.m. CDT
Full Proposal (by invitation only) to NSF on 27 January 2014, 5:00 p.m. CST

NOI Format and Content:
Proposal pages should have at least 1” margins all around, and use no smaller than an 11-point font for the text. Tables and figures are exempt from the 11-point requirement, but must be clearly legible.

Submission Method: Electronic files emailed to your OSP Contract Administrator.
NOI Contents:

1. Cover Page:
   a. Include “NSF 13-559 Physics Frontiers Centers”
   b. The proposal title should begin with component acronym “PFC”. For example, “PFC: This is My Proposal Title.”
   c. Names, departments/centers, and email address for each PI, Co-I, and key personnel proposed.

2. Project Summary: (Limit: 2 pages double-spaced) The Project Summary consists of a concise overview of the proposed PFC activities, a separate statement on the intellectual merit of the proposed activity, and a separate statement on the broader impacts of the proposed activity.

3. Project Description\(^1\): (Limit: 6 pages, double-spaced) Please include in this section a clear rationale for and description of the proposed PFC and its potential impact. Briefly describe the institutional setting of the PFC unit, its proposed scope and organization, proposed activities in research and education and their integration, proposed efforts to promote diversity, proposed outreach activities to the scientific community and general public, any shared experimental facilities, and any collaborative activities with other sectors.

4. One to two-page tentative budget and budget justification showing estimated costs and justification (the OSP Contract Administrator is available to assist you if requested)

5. One to two-page bio for each PI, Co-I and key personnel proposed.

Questions about the internal NOI preparation or process should be directed to your OSP Contract Administrator.

\(^1\) See NSF 13-559, Section V.A.3 for more information about PFC Project Description