Collaborative vs sub-award

FOA page 5:

Multi-Institutional Teams

Applications to this FOA must be multi-institutional teams. The lead institution must be a DOE SC or NNSA National Laboratory[1]. The lead PI must be a staff member of the lead institution. Applications must ensure that that the lead institution requests more funding from NP than any other team member. Requests to change the lead institution receiving the greatest funding after an application is submitted will result in the application being declined unless the request is the result of the lead PI's death, incapacitation, or relocation.

SC uses two different mechanisms to support teams of multiple institutions.

COLLABORATIVE APPLICATIONS

Teams of multiple institutions may submit collaborative applications. Each submitted application in such a team must indicate that it is part of a collaborative project/group. Every partner institution must submit an application through its own sponsored research office. Each multi-

institutional team can have only one lead institution. Each application within the multi-institutional team, including the narrative, starting with the title page, and all required appendices and attachments, must be identical with the following exceptions:
- Each application must contain a correct SF-424 (R&R)[2] cover page for the submitting institution only.
- Each application must contain a unique budget corresponding to the expenditures for that application's submitting institution only.
- Each application must contain a unique budget justification corresponding to the expenditures for that application's submitting institution only.

Our intent is to create from the various applications associated with a multi-institutional team one document for merit review that consists of the common, identical materials combined with a set of detailed budgets from the partner institutions. Thus, it is very important that every research narrative in the multi-institutional team be identical, while each team member must submit its own system-generated cover page, budget, and budget justification. Each team member's application must contain the same project title.

SUBAWARDS[3]

Multi-institutional teams may submit one application from a designated lead institution with all other team members proposed as subrecipients.

DOE/National Nuclear Security Administration (NNSA) National Laboratories[4], other Federal agencies, and another Federal agency's FFRDCs[5], if participating in a team led by another institution, may be proposed as subrecipient.

Note that the value of any such proposed subaward may be removed from any such prime award: DOE may make separate awards to Federally affiliated institutions.

DISTINGUISHING BETWEEN COLLABORATIVE APPLICATIONS AND SUBAWARDS

The following points of advice to applicants may be helpful:
1. Both collaborative applications and proposed subawards are methods by which multiple institutions can work together to reach the scientific objectives described in this FOA. Choose the appropriate structure based on the nature of the scientific work being proposed. If multiple institutions will be functioning as a network of peer-level researchers, a collaborative structure would be more appropriate. If multiple institutions will be functioning with leadership and direction coming from one institution, a subaward arrangement would be more appropriate.
   a. Collaborative applications are assembled from multiple identical applications submitted by the proposing institution. Such applications may be submitted under this FOA in Grants.gov. The multiple applications will be assembled into one joint collaborative application, which will be merit-reviewed as one document, with recommendations to fund or decline the application made at the level of each independent application.
   b. Subawards exist when multiple institutions work together to submit one application with a designated prime awardee and multiple potential subrecipients.
   c. DOE/NNSA National Laboratories, other Federal agencies, and another Federal agency's FFRDCs may be proposed as subrecipients, but the value of any such proposed subaward may be removed from any such prime award: DOE will often make separate awards to Federally affiliated institutions.
2. A well-thought-out research plan and its associated budget(s) should leave no confusion about which institution will do which parts of the research.

Collaborative vs sub-award: considerations

Collaborative:
- no LBNL burden on subcontracts (14.5%), which are directly funded by DOE
- less administrative work – each award is independent

We need to decide which arrangement we adopt. If the burden at non-LBNL institutions is similar in both cases, then Collaborative is clearly preferred.

Question to non-LBNL institutions: what is the burden at your institution for the Collaborative vs sub-award arrangement?
- Please provide the answer by Wed Mar 16 (should be simple to determine)
- Please also tell us your institutional contact for administrative matters

Funding

C. MAXIMUM AND MINIMUM AWARD SIZE

(See B. Estimated Funding above.)

The award size will depend on the number of meritorious applications and the availability of appropriated funds.

A multi-institutional team, whether applied for as a prime applicant with subawards or as collaborative applications:

Ceiling: $2,750,000 per year.
Floor: $250,000 per year

Each institution in a multi-institutional team submitting collaborative applications:

Ceiling: $1,250,000 per year
Floor: $250,000 per year

Main question to resolve asap: what are we asking for?

Projects:
- Neutrinos: Katrin, Cuore/Cupid, Legend (Kolomensky, Lehnert, Poon)
- Quark-Gluon Plasma (Jacobs, Majumder)
- Radiological mapping (Cooper, Joshi)
- Gamma-ray tracking (Cromaz)

NP

- Monte-Carlo (Seljak, Nachman)
- Emulation (Mak)
- FastMATH (Casey)

ASCR

Baseline proposal:
- Each project: 0.5 FTE PD + 0.1 FTE Senior + $10K travel
- Neutrinos and QGP are each two projects

9 projects * $200K ~ $1.8M
6 DOE projects, 3 ASCR projects (OK)

Should we be more ambitious?

The project narrative **must not exceed a page limit of 28 pages** of technical information, including charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard letter-size (8.5 inch x 11 inch) paper with 1-inch margins (top, bottom, left, and right). The font must not be smaller than 11 point. Merit reviewers will only consider the number of pages specified in the first sentence of this paragraph. This page limit does not apply to the Title Page, Budget Page(s), Budget Justification, biographical material, publications and references, and appendices, each of which may have its own page limit defined later in this FOA.

Do not include any websites (URLs) that provide supplementary or additional information that constitutes a part of the application. Merit reviewers are not required to access websites; however, Internet publications in a list of references will be treated identically to print publications. See Section VIII for instructions on how to mark proprietary application information. To attach a Project Narrative, click "Add Attachment."

The Project Narrative comprises the research plan for the project. It should contain enough background material in the Introduction, including a brief review of the relevant literature and any prior research in this area, to demonstrate sufficient knowledge of the state of the science. The major part of the narrative should be devoted to a description and justification of the proposed project, including details of the methods to be used. It should also include a timeline for the major activities of the proposed project, and should indicate which project personnel will be responsible for which activities. There should be no ambiguity about which personnel will perform particular parts of the project, and the time at which these activities will take place.

The following organization of the Project Narrative is suggested:

- **Background/Introduction**: Explanation of the importance and relevance of the proposed work as well as a review of the relevant literature.
- **Project Objectives**: This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.
- **Proposed Research and Methods**: Identify the hypotheses to be tested (if any) and details of the methods to be used including the integration of nuclear physics with computational research efforts.

The Project Narrative is considered the intellectual work of the proposed researchers. Concurrent submission of the same or substantially similar narratives attributed to different researchers may constitute academic dishonesty or research misconduct. Submission of a research narrative that is not the work of the proposed researchers, including machine-generated research narratives, may constitute academic dishonesty or research misconduct.

Thoughts on Project Narrative

Projects:
- Neutrinos: Katrin, Cuore/Cupid, Legend (Kolomensky, Lehnert, Poon)
- Quark-Gluon Plasma (Jacobs, Majumder)
- Radiological mapping (Cooper, Joshi)
- Gamma-ray tracking (Cromaz)

- Monte-Carlo (Seljak, Nachman)
- Emulation (Mak)
- FastMATH (Casey)

Let's consider Neutrinos and Algorithms" to each be a "Project" for this section
- 5 Projects: Neutrinos, QGP, Radiol. Mapping, Gamma-ray Tracking, Algorithms
- Each Project should have an integrated narrative

First proposal for page count (total=28):
- Background/Intro: 6 pages (1 each for physics projects, 2 for Algorithms)
- Project objectives: 7 pages (~1.5 pages each)
- Research and Methods: 15 pages (~3 pages each)

Provide a biographical sketch for the PI and each senior/key person listed in Section A on the R&R Budget form.

- Provide the biographical sketch information as an appendix to your project narrative.
- Do not attach a separate file.
- The biographical sketch appendix will not count in the project narrative page limitation.
- The biographical information (curriculum vitae) for each person must not exceed three pages when printed on letter-size (8.5 inch x 11 inch) paper with 1-inch margins (top, bottom, left, and right) with font not smaller than 11 point

Detailed instructions may be found in Section VIII of this FOA.

> **WARNING**: These instructions have been significantly revised to require disclosure of a variety of potential conflicts of interest or commitment, including participation in foreign government-sponsored talent recruitment programs.
>
> The PI and each senior/key person at the prime applicant and any proposed subaward must provide a list of all sponsored activities, awards, and appointments, whether paid or unpaid; provided as a gift with terms or conditions or provided as a gift without terms or conditions; full-time, part-time, or voluntary; faculty, visiting, adjunct, or honorary; cash or in-kind; foreign or domestic; governmental or private-sector; directly supporting the individual's research or indirectly supporting the individual by supporting students, research staff, space, equipment, or other research expenses. All foreign government-sponsored talent recruitment programs must be identified in current and pending support.

For Collaborative Applications Only: Each institution in a multi-institutional team submitting collaborative applications must submit an identical common narrative, including all appendices. The common narrative must identify which tasks and activities will be performed by which of the institutions in every budget period of the proposed project. The budget and the budget justification—which are unique to each institution—may refer to parts of the common narrative to further identify each institution's activities in the joint project. There should be no ambiguity about each institution's role and participation in the team.

SC will use the multiple applications associated with a multi-institutional team to create one consolidated document for merit review that consists of the common, identical application materials combined with a set of detailed budgets from the partner institutions. It is very important that every application in the team be identical (including the title) with the exception of the budget and budget justification pages.

APPENDIX 2: CURRENT AND PENDING SUPPORT

Provide a list of all current and pending support for the PI and senior/key personnel, including subrecipients, regardless of funding source. Provide the Current and Pending Support as an appendix to your project narrative. Concurrent submission of an application to other organizations for simultaneous consideration will not prejudice its review.

- Do not attach a separate file.
- This appendix will not count in the project narrative page limitation.

Detailed instructions may be found in Section VIII of this FOA.

APPENDIX 3: BIBLIOGRAPHY & REFERENCES CITED

Provide a bibliography of any references cited in the Project Narrative. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. For research areas where there are routinely more than 10 coauthors of archival publications, you may use an abbreviated style such as the *Physical Review Letters* (PRL) convention for citations (listing only the first author). For example, your paper may be listed as, "A Really Important New Result," A. Aardvark et. al. (MONGO Collaboration), PRL 999. Include only bibliographic citations. Applicants should be especially careful to follow scholarly practices in providing citations for source materials relied upon when preparing any section of the application. Provide the Bibliography and References Cited information as an appendix to your project narrative.

- Do not attach a separate file.
- This appendix will not count in the project narrative page limitation.

APPENDIX 4: FACILITIES & OTHER RESOURCES

This information is used to assess the capability of the organizational resources, including subrecipient resources, available to perform the effort proposed. Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical and Other). If appropriate, indicate their

capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Describe other resources available to the project (e.g., machine shop, electronic shop) and the extent to which they would be available to the project. For proposed investigations requiring access to experimental user facilities maintained by institutions other than the applicant, please provide a document from the facility manager confirming that the researchers will have access to the facility. Such documents, provided that they do not become letters of support or recommendation, may be printed on any letterhead. Please provide the Facility and Other Resource information as an appendix to your project narrative.

- Do not attach a separate file.
- This appendix will not count in the project narrative page limitation.

APPENDIX 6: DATA MANAGEMENT PLAN

Provide a Data Management Plan (DMP) as an appendix to the research narrative.
- This appendix should not exceed a page limit of 4 pages including charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard letter-size (8.5 inch x 11 inch) paper with 1-inch margins (top, bottom, left, and right)
- Do not attach a separate file.
- This appendix will not count in the project narrative page limitation.

The standard requirements for a DMP may be found in Section VIII of this FOA.

BUDGET JUSTIFICATION (FIELD L ON THE FORM)

Provide a justification that explains all costs proposed in the budget. The following items of advice are offered to assist you in developing a justification.

- Organize the justification by listing items in the same order as presented on the budget.
- Ensure that the narrative matches the budget in dollar amounts and language.
- Explain the line items. If costs are estimated, provide a basis for the estimate. Explain if costs are based on prior experience of similar activities. If a cost is based on the product of two numbers (such as a number of items at a per-item price), ensure that your math is correct.
- If including an inflationary factor for future budget periods, explain the basis for the inflationary factor.

Provide any other information you wish to submit to justify your budget request. Including items in the budget justification is not considered a form of cost-sharing: Provide the details of all personnel (key or other) who will be working on the award, regardless of their source(s) of compensation. Explain their source(s) of compensation if it is not from this award. Include the indirect cost rate agreement as a part of the budget justification.

Attach a single budget justification file for the entire project period in field L. The file automatically carries over to each budget year.

8. Summary of Required Forms/Files

Your application must include the following items:

Name of Document	Format	Attach to
SF 424 (R&R)	Form	N/A
RESEARCH AND RELATED Other Project Information	Form	N/A
Project Summary/Abstract	PDF	Field 7
Project Narrative, including required appendices	PDF	Field 8
Identification of Merit Review Conflicts	File	Field 12
RESEARCH & RELATED BUDGET	Form	N/A
Budget Justification	PDF	Field L
R&R SUBAWARD BUDGET ATTACHMENT(S) FORM (if applicable)	Form	N/A
Subaward Budget Justification (if applicable)	PDF	Field L of the subaward budget
PROJECT/PERFORMANCE SITE LOCATION(S)	Form	N/A
SF-LLL Disclosure of Lobbying Activities, if applicable	Form	N/A

2. Merit Review Criteria

Applications will be subjected to scientific merit review (peer review) and will be evaluated against the following criteria as found in 10 CFR 605.10 (d), the Office of Science Financial Assistance Program Rule.

- Scientific and/or Technical Merit of the Project;
- Appropriateness of the Proposed Method or Approach;
- Competency of Applicant's Personnel and Adequacy of Proposed Resources; and
- Reasonableness and Appropriateness of the Proposed Budget.

Merit reviewers will be asked to evaluate two additional criterion of equal significance to the criteria established by regulation.
- Effectiveness of the Management Plan
- Suitability of the Data Management Plan

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

It is expected that awards will be made in Fiscal Year 2022. DOE is interested in seeing projects supported under this FOA begin work by August 15, 2022.

Schedule

FOA Issue Date:	December 22, 2021
Submission Deadline for Letters of Intent:	February 24, 2022 at 5:00 PM ET A Letter of Intent is required
Letters of Intent Response:	March 2, 2002 at 5:00 PM ET
Submission Deadline for Applications:	April 26, 2022 at 11:59 PM ET

Proposed schedule:

- Wed Mar 16: feedback from each institution on overhead rates, admin contact
- Wed Mar 30:
  - first draft of Project Narrative
  - each PI: Biographical sketch
  - each institution: budget; current and pending support (Appendix 2); Facilities (Appendix 4)
- Fri Apr 8: Integration of Project Narrative, close to final draft
- Fri Apr 15: submit to NSD office for review
- Mon Apr 18: submit to Contract Office for review
- Mon Apr 25: Submit to DOE