NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 20-049

Frequently Asked Questions (FAQs) for for NSF 20-540, NSF-Simons Research Collaborations on the Mathematical and Scientific Foundations of Deep Learning (MoDL)

1. Are letters of intent or preliminary proposals required for the MoDL program solicitation?

2. Are there any PI and co-PI submission limits in effect for the MoDL solicitation?

3. Are there any limits to the number of PIs or co-PIs who could be on a MoDL proposal?

4. Can a foreign organization as a partner or subawardee or a PI/co-PI from a foreign organization be funded through an MoDL award?

5. Can I submit a MoDL proposal to NSF for a project that was submitted to or is under review at NSF or another agency?

6. Are there any required Supplementary Documents that must be included in my MoDL proposal?

7. Are there minimum or maximum budget limits for MoDL proposals?

8. Are there solicitation-specific review criteria that reviewers will be asked to use in evaluating MoDL proposals?

9. How many awards are expected from the MoDL program solicitation?

10. What if my question is not addressed by these FAQs?

1. **Are letters of intent or preliminary proposals required for the MoDL program solicitation?**

   Preliminary proposals are not required. Letters of intent are required and must be submitted by the due date, March 20, 2020. Letters of intent are not subject to merit review but instead are used for internal planning purposes, including the identification of reviewers with relevant expertise and without conflicts of interest.

Each LOI must include the following information:

- **Synopsis:** include a one-paragraph overview of the plans for a research collaboration. This should be followed by the heading "Keywords" and a list of 6-12 keywords describing specific topics of research.
- **Project PI and Senior Personnel:** list the full names and institutional affiliations for the PI and up to 4 co-PIs and Senior Personnel on the planned project, including any intended collaborative proposals or subawardees.
- **Other Comments:** list the full names and institutional affiliations for the PI and all co-PIs and Senior Personnel on the planned project, including those to be listed in the Project PI and Senior Personnel section. These names must be listed in the following format: Last name, first name, email address, affiliation. Commas must separate these four fields; semicolons should separate entries for different individuals. The point of contact for NSF inquiries must be the same as the project PI, and must appear on the first line. Additional text boxes may be used for more space if the Other Comments box is insufficient.

2. **Are there any PI and co-PI submission limits in effect for the MoDL solicitation?**

   Yes. An individual may appear as PI, co-PI, or other senior personnel on no more than two proposals submitted in response to this solicitation. Other senior personnel include lead PIs on sub-awards and named postdoctoral research associates. There is no limitation on unpaid consultants.

3. **Are there any limits to the number of PIs or co-PIs who could be on a MoDL proposal?**

   Each proposal is limited to one PI and four co-PIs. Proposers may add further staff as Senior Personnel. The key personnel on subawards should be included as either co-PI or other Senior Personnel. There is no limit on the number of senior personnel in addition to the PI and co-PIs listed on the cover page. A project that involves multiple organizations may be submitted as linked collaborative proposals, with each individual proposal within the collaborative project including one PI and up to four co-PIs. The roles and responsibilities of other senior personnel, including lead investigators on collaborative proposals, can be included in the required Supplementary Document, Management and Collaboration Plan.

   Note that there is a limit of two proposals on which any PI, co-PI or other senior personnel may appear (see FAQ #2).

4. **Can a foreign organization as a partner or subawardee or a PI/co-PI from a foreign organization be funded through an MoDL award?**

NSF does not expect to provide direct funding support to foreign organizations. The Simons Foundation can support personnel at a foreign institution on an MoDL award. Requests for financial support of personnel from foreign organizations should be included in the Simons Foundation Budget. Full information regarding NSF support to foreign organizations can be found in the NSF Proposal & Award Policies & Procedures Guide (PAPPG) Chapter I.E.6.

5. **Can I submit a MoDL proposal to NSF for a project that was submitted to or is under review at NSF or another agency?**
MoDL proposals cannot be duplicates of proposals submitted to NSF or any other Federal agency for simultaneous consideration. A proposal that is a duplicate of, or substantially similar to, a proposal already under consideration by NSF from the same submitter will not be accepted or will be returned without review. See the NSF Proposal & Award Policies & Procedures Guide (PAPPG) Chapter I.G.2.

6. **Are there any required Supplementary Documents that must be included in my MoDL proposal?**
Yes. In addition to the supplementary documents specified in the PAPPG, MoDL proposals must include the following three Supplementary Documents:

   1. **Simons Foundation Budget:** Awards will be jointly made with the Simons Foundation. Half of the budget must be prepared by following instructions from the Simons Foundation, included with the announcement of this funding opportunity at the Simons Foundation website (https://www.simonsfoundation.org/). Note that the Simons Foundation has a specific indirect cost rate policy (https://www.simonsfoundation.org/funding-opportunities/policies-and-procedures/). The Simons Foundation does not use the role of co-PI. Individuals on the Simons Foundation budget must be designated as PI, co-Investigator ("co-I") or other role.
   2. **Management and Collaboration Plan** (maximum 5 pages): Provide a list of key leadership personnel, and a brief description of what each person brings to the leadership team. Describe the duties and expected contributions of each individual in the collaboration. This plan must also describe the expertise in the appropriate disciplines provided by the PIs as well as ways for working together to meet the goals of the program.
   3. **Evaluation Plan** (maximum 5 pages): Describe measures to evaluate progress toward the proposed project's goals; and a plan for quantitative and qualitative methods to assess the effectiveness and impact of the proposed institute's activities.

      See the MoDL solicitation for more details on the contents of the required

supplementary documents.

7. **Are there minimum or maximum budget limits for MoDL proposals?**

There is no minimum; however, requested budgets should not exceed $2,000,000 per year for each of five years in total costs (direct plus indirect costs). Awards will be jointly made with the Simons Foundation. See the MoDL solicitation for information concerning preparation of the requested budget.

Estimated program budget, number of awards, and average award size/duration are subject to the availability of funds.

8. **Are there solicitation-specific review criteria that reviewers will be asked to use in evaluating MoDL proposals?**

Yes. Please see Section VI.A of the program solicitation (NSF 20-540), for a description of NSF's merit review principles and criteria and the **Additional Solicitation Specific Review Criteria**, copied here:

In addition to the above criteria, the following will be used in the evaluation process:

- Does the proposal describe a well-integrated research and training program focused on the mathematical and scientific foundations of deep learning and fostering collaboration and interaction among the communities of mathematics, statistics, theoretical computer science, and electrical engineering?
- Synergy: Is the project transdisciplinary, bringing together theories and approaches from theoretical computer science, electrical engineering, mathematics, and statistics? Is there synergy among the project team members from the different communities?
- Vision: Is there a strong case for the project team's ability to identify and articulate a vision for the foundations of deep learning?
- Quality and Value of Collaboration: Is the expertise of the PIs, co-PIs (co-Is) complementary and well-suited to the research and training programs developed in this project? Are the specific roles of each collaborating investigator clear? Does the collective team have expertise representing the four communities (electrical engineering, statistics, mathematics, and theoretical computer science)?
- Does the Management and Collaboration Plan indicate the project leadership has the capabilities to guide and manage a project of this size?
- Does the Evaluation Plan identify clear measures of success along with a plan to evaluate the project with respect to those measures by gathering quantitative and qualitative data?
- Does the Evaluation Plan provide a clear plan for thoughtful, ongoing assessment of all project activities? How will the assessment be used to inform and improve

both daily operations and long-range planning?

9. **How many awards are expected from the MoDL program solicitation?**

   NSF and the Simons Foundation expect to co-fund two projects of five years duration each, and each project will have an annual budget of $2,000,000 combined from both sources.

   Estimated program budget, number of awards, and average award size/duration are subject to the availability of funds

10. **What if my question is not addressed by these FAQs?**

    Please ask us! For timely responses to your questions, send an email message to the Program Directors on the MoDL Working Group at modl@nsf.gov.