

**DPI-Fermilab Research Partnership on Computing and Data Technologies
Seed Grant Awards
Call for Proposals**

Proposal Due: March 3, 2023

The Program

The [Discovery Partners Institute](#) (DPI) and [Fermilab](#) invite faculty from the University of Illinois System (DPI, University of Illinois at Chicago, University of Illinois at Springfield, and University of Illinois at Urbana-Champaign) and researchers from Fermilab to submit seed grant proposals to conduct joint research on computing and data technologies (e.g., artificial intelligence, high-performance computing, machine learning, cybersecurity, pattern recognition). Our goal is to leverage the complementary research expertise and resources from both organizations to develop the next generation of computing and data technologies with inspiring impacts on science, the economy, and society.

Proposals should demonstrate the ability to advance fundamental knowledge in research on computing and data technologies with potential for industry application in one or more of the following sectors:

- Digital government
- Energy
- Finance and insurance
- Food and agriculture
- Health and wellness
- Information technology
- Infrastructure
- Transportation / logistics
- Water, environment, climate

Eligibility

Each proposal must include at least two and no more than six senior research personnel with a maximum of three from each partner organization (University of Illinois System and Fermilab), plus any number of other personnel. One of the senior research personnel from each organization will serve as a principal investigator (PI), with the other serving as a Co-PI. The senior research personnel must have at least a 0.5 FTE appointment with the University of Illinois System or Fermilab. All members must be current employees of the University of Illinois System or Fermilab.

While not a requirement, we strongly encourage proposing teams to include members from different disciplines or specialization areas with complementary expertise, particularly those with experience and knowledge about potential industry application and commercialization of the computing/data technology that the team is developing.

Selection Criteria

Proposals will be peer reviewed and selected by a program committee using the following criteria:

1. **Scientific/Technical Significance:** How important is the proposed activity to advancing fundamental knowledge in research on computing and data technologies?
2. **Innovativeness/Novelty:** To what extent does the proposed activity represent a new, original approach (concept, theory, methodology, data, instrumentation, etc.) to research on computing and data technologies that is different and better than existing ones?
3. **Potential for Industry Application:** What is the potential of the proposed activity for helping to solve complex problems (existing or anticipated) facing organizations in one or more of the industry sectors identified in the Call for Proposals? What is the potential for the resulting technology from the proposed activity to be licensed by an industrial partner or become a successful business venture?
4. **Potential for External Funding:** What is the potential of the proposed activity for receiving external funding from government grants, foundation awards, or contract research?
5. **Team Qualifications and Complementarity:** How well qualified is the proposing team to conduct the project? Does it have sufficient expertise to address all the technical and non-technical requirements of the project plan? Is there complementarity in expertise that will help in the success of the project?
6. **Proposal Quality:** How well conceived and organized is the proposed activity? Are the estimates of time and effort reasonable? Are the requested level of funding, itemized expenses, and level of contingency appropriate?
7. **Likelihood of Success:** Can the project be completed within the proposed funding level and duration?

Budget

Proposals can request awards of \$150,000 of direct costs (excluding overhead) for a period up to 18 months from each proposing team consisting of personnel from both the University of Illinois System and Fermilab. The award will be divided evenly with \$75,000 to be spent by personnel from each partner organization as follows:

- University of Illinois System: Not more than \$15,000 may be used to pay for salaries (e.g., faculty summer support, teaching buy-out, released time from other duties) of the senior research personnel. The maximum amount that each person may receive is \$5,000. Not more than three senior research personnel may receive salary support. The remaining \$60,000 may be used to cover project expenses such as wages of graduate students and postdocs, travel, materials, equipment, etc. No overhead charges are to be included in the proposed budget. They will be handled internally by the University of Illinois System.

- Fermilab: The total amount of \$75,000 may be used for salary and other project expenses. No overhead charges are to be included in the proposed budget. They will be handled internally by Fermilab.

Proposing teams that are selected for funding may be asked to submit additional documentation to meet the respective accounting requirements of DPI and Fermilab.

Resources Offered

In addition to award funding, DPI will provide services and other resources for the research team including, but not limited to, administrative support, proposal development support, connections to faculty and researchers from other DPI partner institutions, entrepreneurship training, business consulting, connections with industry and government funding agencies, and access to downtown Chicago office space.

Proposal Preparation

Submissions must include the following information:

Cover page:

- Project name
- Names, titles, and affiliations of Principal Investigator (PI) and Co-PI
- Names, titles, and affiliations of other senior research personnel
- Project start and end dates

Proposal Sections:

- Project Abstract (300 words maximum)
- Project Description (five pages maximum, single-spacing, 11-point font, one-inch margins):
 - Problem Statement
 - Research Objectives
 - Methodology and Activities (including specific roles of participating members)
 - Novelty and Significance
 - Industry Application / Commercialization / Business Potential
 - Outcomes and Deliverables
 - Criteria for Success
 - Timeline and Milestones
- Supporting Information (single-spacing, 11-point font, one-inch margins):
 - Bibliography of relevant scholarship related to the project (two pages maximum)
 - Budget and budget explanation for requested funding amount (two pages maximum)
 - List of previous external (governmental, foundation, corporate, NGO, etc.)

funding awards with titles, amounts, and links to specific proposals (one page maximum)

- List of identified external funding programs/prospects that the proposing team intends to pursue (one page maximum)
- CVs of PI and Co-PI and other senior members of the research team (two pages each maximum)

Contacts

For questions and inquiries about this Call, please contact dpi-fermi@uillinois.edu.

Information Session

We will be hosting an information session via Zoom on February 1 Wednesday from 4-5 pm to go over the Call for Proposals and submission process. Please register [here](#) if you wish to attend.