The Physics 595 Research Initiative
University of Illinois at Urbana-Champaign

Request for Proposals

The Department of Physics at the University of Illinois at Urbana-Champaign (PHYS/UIUC) announces an intensive 1-year program to provide opportunities for talented graduate students to participate in research. Prospective participants are invited to submit proposals for research projects for the 2023 program.

Project Summary "white papers" are due by 5:00 P.M. CST, April 14, 2023. Full proposals are due by 5:00 P.M. CST, April 21, 2023.
Proposals submitted after the deadline will not be considered.

The Initiative

The PHYS/UIUC Phys 595 research program provides resources to enable graduate students to undertake research projects in experimental, theoretical, and computational physics. Of particular interest are projects in condensed matter physics, materials science, theoretical biophysics, theoretical astrophysics, and experimental particle and nuclear physics. Proposed research projects should offer interesting, meaningful research that can be conducted without extensive background knowledge, in a 1-year time frame, and with a broad mix of appropriate techniques and methodologies. An ideal project will offer the student a chance to develop expertise in a particular area while learning techniques applicable to many areas.

Objectives of the Program

- Provide students with a meaningful experience in a first-class research environment.
- Enable students to work closely and directly with practicing researchers.
- Encourage students to develop their own "research literacy," including familiarity with the literature, oral and written communications skills, time management, and teamwork skills.

Terms

Grants are for a 1-year period, beginning August 1, 2023.

Grantees are required to provide a final presentation and a written report that:

- Summarize activities and results as they relate to the proposed objectives.
- Discuss the significance of the results.
- Recommend avenues for future work.

Grantees will participate in programmatic activities and group meetings during the 1-year grant period. Grantees are encouraged to participate in research-group and departmental seminars and colloquia.

Budget and Budget Justification

A maximum of $25,000 may be requested, of which $5,000 must be a student stipend. Other eligible expenses are equipment, materials and supplies, telecommunications, travel, publication/dissemination of results, and institutional overhead.

Institutional overhead is to be calculated at a rate of 52 percent of the modified total direct cost (MTDC) base. Student stipends and equipment costs are to be excluded from the MTDC.
A narrative budget justification of no more than one page must be included in the proposal.

Criteria
Proposals submitted under this RFP will be peer-reviewed, using the National Science Board merit review criteria. Review panels will present recommendations for awards to the Associate Head for Graduate Programs, Professor S. Lance Cooper. Selection criteria include:

- Overall scientific and technical merit of the project.
- Feasibility.
- Qualifications, capabilities, and experience of the applicant.
- Realism of the proposed project costs.
- The potential of the project to improve the student's knowledge and skills.
- The inclusion of specific evaluation mechanisms for measuring the success of the proposed project.

Proposals
Proposals may be ***no longer than 9 pages*** and should include the following:

- Cover page—maximum one page.
- Project summary, including explicit statements regarding the "intellectual merit" and "broad impact" of the proposed work—maximum one page.
- Project narrative, including a comprehensive description of the problem to be studied, expected outcomes and how they will be measured, and a discussion of the project's potential contribution to the applicant's graduate education—maximum 5 pages.
- References cited—doesn't count toward total page limit.
- Budget and justification (use the budget categories mentioned above under "Budget")—maximum one page.
- Proposer's *curriculum vitae*—maximum one page.

Submission
Deliver ***an electronic copy*** of your proposal to S. Lance Cooper (slcooper@illinois.edu), by 5:00 P.M. on Friday, April 21, 2023.

Proposal Time Line

- Project Summary 'white paper' submitted by Friday, April 14, 2023.
- Written proposals submitted by Friday, April 21, 2023.
- Assigned proposals will be sent to students starting on Monday, April 24, 2023.
- Proposal Panel Review on Friday, April 28, 2023.
- Awards announced by Friday, May 5, 2023.
- Project implementation to start August 1, 2023.

For further information about this RFP, contact:
S. Lance Cooper, Department of Physics
227 Loomis Laboratory of Physics
217-333-2589 • *slcooper@illinois.edu.*

The University of Illinois at Urbana-Champaign is an equal employment opportunity employer. Proposals from women and minorities historically underrepresented in science and engineering are particularly welcomed.