UCLA Physics and Astronomy Honors Society Undergraduate Research Program

The UCLA Physics and Astronomy Honors Society Undergraduate Research Program will support talented UCLA undergraduates to conduct cutting-edge research with UCLA faculty in the Department of Physics and Astronomy during the academic year. This program is initiated by the UCLA Sigma Pi Sigma chapter, whose mission is to promote and honor excellence in physics and astronomy, and recipients will be offered membership in the UCLA Sigma Pi Sigma society.

There is a strong unmet need for such support. Public funding for science has declined, and UCLA, like other public universities, faces budget constraints that limit participation of undergraduates in research. Yet meaningful research experience is essential for students aspiring to graduate study—it deepens their education, builds technical skills, and strengthens their competitiveness for top programs. The program provides hourly compensation to selected students, allowing them to devote around 10 hours per week to research during the academic year. This creates equitable access for students who cannot afford to do unpaid research, and enables faculty to involve undergraduates in their projects despite tight research budgets.

UCLA's physics and astronomy research spans the full spectrum of the physical sciences—from "big science," such as high energy physics and plasma fusion energy, to emerging areas like topological materials and quantum computing. In astronomy, UCLA faculty lead in studies of extrasolar planets, galactic dynamics, and cosmology. This program will directly support student participation in frontier areas.

The structure for this academic year program, which takes place during the academic year, is modeled on the highly successful UCLA Research Experience for Undergraduates (REU) program, which takes place in the summer. Each year:

- Faculty indicate their interest in mentoring and potential projects. This information is posted to students.
- Students submit applications, including a statement of purpose, CV, transcript, and preferred mentors.
- A selection committee is appointed by the Chair in consultation with Sigma Pi Sigma leaders. Faculty submit
 their reviews of applicants to the selection committee, which makes recommendations to the Chair for final
 selection.
- Recipients present midyear updates at a Sigma Pi Sigma seminar, and share their results in a public forum such as the UCLA Undergraduate Research & Creativity Showcase in May.

Support for each year-long research opportunity costs approximately \$6,000. A three-year pilot program with five opportunities per year would require funding of \$90,000. Please consider donating to the UCLA Physics & Astronomy Undergraduate Research Program fund in honor of Sigma Pi Sigma. Donors will be prominently recognized on the UCLA Sigma Pi Sigma website (sigmapisigmaucla.com) and will receive updates on student selections, research progress, and presentations. If you have questions about your tax-deductible gift, please visit https://giveto.ucla.edu/faq/. For further questions and inquiries, please email Professor Jay Hauser via hauser at physics.ucla.edu or contact the UCLA Sigma Pi Sigma board through sigmapisigma at gmail.com.

How to give online: Click <u>here</u> or scan the QR code:



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