

The Department of Physics & Astronomy at the University of Pittsburgh  
is pleased to announce the

# Thomas-Lain Fund Scholarship Essay Competition

## ELIGIBILITY

Any University of Pittsburgh declared undergraduate physics/astronomy major or graduate student in the Department of Physics is eligible to enter this competition provided the student has a cumulative GPA of 3.25 or higher and has at least one full term of study left to complete at the University before graduation following the essay submission deadline.

## ESSAY TOPICS

**UNDERGRADUATE STUDENTS:** James Webb Space Telescope. The JWST has just launched! Describe the physics and engineering aspects of the telescope, focusing, for example, on the scientific mission, launch and orbital aspects, instrumentation, and construction of the satellite.

**GRADUATE STUDENTS:** Fusion. As the ITER reactor nears completion, earthly fusion is coming closer to reality. Explain the physics underpinning the concept, the challenges to be overcome, social impact, and future prospects.

## RULES

- ▶ The science essay must be an original research paper written by the student who submits it for this competition. The paper must be written in the style of articles published in the American Journal of Physics.
- ▶ The text of the completed essay must be no fewer than 4 and no longer than 5 pages long, printed double-spaced on 8.5"x11" white paper, using a 12-point font with 1" margins on all edges. All sources of material used in the essay must be referenced in the text, with a list of references (in AIP format) provided as an attachment. Figures are optional. Neither the list of references nor any figures will be counted against the above length limitation. The essay must be submitted as a PDF file and, preferably, typeset with a program such as latex.
- ▶ A cover page must be included with the following information about the student: full name, mailing and email address, telephone number, and status (undergraduate major or graduate student, the degree program and the year of study in which the student is currently enrolled, and the expected date of graduation). This page does not count toward the 5-page limit.
- ▶ A copy of the student's unofficial transcript must accompany the essay. This document can be requested for free from the Registrar's Office.

## AWARDS

- ▶ Scholarship awards will be made on the basis of a science essay competition.
- ▶ Individual awards will range between \$1,000 and \$5,000 per year, based upon the amount available from the Thomas-Lain Fund and the number of awards made.
- ▶ For undergraduates, the award may be used for tuition, books, fees, campus housing, or other expenses directly related to the academic program.
- ▶ For graduate students, if tuition and all other fees are covered by University support, a stipend or award may be given directly to the student.
- ▶ Awards may be renewable on a yearly basis at the original amount until the awardee completes the current degree program, provided the student maintains a GPA of 3.25 or higher and continues to pursue the same degree program actively.
- ▶ Previous award recipients are not eligible to re-apply.

## DEADLINE

The essay, including cover page & transcript, must be submitted to Mary Weiher (mew200@pitt.edu) by **4:00PM ON TUESDAY, MARCH 15, 2022**

## HELP & INFORMATION

Questions regarding competition rules should be directed to Mary Weiher. mew200@pitt.edu / paugrad@pitt.edu  
100 Allen Hall

The Writing Center is available for general help and advice in essay writing. [www.writingcenter.pitt.edu](http://www.writingcenter.pitt.edu)  
317B O'Hara Student Center

## EVALUATION

A departmental Thomas-Lain Fund Award Committee composed of three Physics & Astronomy faculty members appointed by the department Chair will evaluate the submitted essays and determine the number of awards to be made. A primary criterion in this evaluation will be the level of scientific understanding of the topic that the student who submitted the essay has demonstrated. Additional criteria are the organization and clarity of the presentation as well as the proper use of the English language, including spelling.