

INCREASING DIVERSITY, EQUITY, AND INCLUSION IN PHYSICS AND ASTRONOMY

A lthough women make up almost 50 percent of physics students in high school, they comprise only 10 percent of full professors in the United States. In astronomy, women make up only 15 percent of full professors. The goal of the Heising-Simons Foundation's Women in Physics and Astronomy grantmaking is to increase the number of women in these fields, both in colleges and in academic and research careers in the United States.

Below are some innovative and scalable initiatives that the Foundation supports in order to promote a more inclusive and diverse physics and astronomy braintrust in the United States. By sharing this work publicly, the Foundation hopes to inspire more such efforts from the funders' community, and within academic institutions.

MARIA GOEPPERT MAYER LECTURE SERIES

Dr. Young-Kee Kim created and oversees the Maria Goeppert Mayer Lecture Series as well as an undergraduate summer research program for women in physics. The lecture series hosts outstanding women physicists in honor of the theoretical physicist who won the 1963 Nobel Prize in Physics for the nuclear shell model.

Host institution: University of Chicago

STEM EQUITY ACHIEVEMENT (SEA) CHANGE

This self-assessment, metrics, and awards program advances institutional transformation in support of diversity and inclusion in colleges and universities.

Host institution: American Association for the Advancement of Science

VERA RUBIN PRESIDENTIAL CHAIR FOR DIVERSITY IN ASTRONOMY AT UC SANTA CRUZ

The endowed chair advances diversity, equity, and inclusive excellence in astronomy by attracting and supporting aspiring astronomers from underrepresented groups.

Host institution: UC Santa Cruz

MIT PHYSICS RESEARCH FELLOWS

Dr. Winslow runs this Fellows pilot program which supports students and postdocs, especially within the particularly underrepresented group of female physicists. The program teaches preparation and review of research proposals, several of which are actually funded.

Host institution: Massachusetts Institute of Technology



RISING STARS WORKSHOPS

These two-and-a-half day workshops bring 25 of the next generation of astronomy and physics academic leaders together for discussions aimed at navigating the early stages of the academic career.

Host institution: Massachusetts

MARGARET BURBIDGE VISITING PROFESSORSHIP OF PHYSICS AND ASTRONOMY

This visiting professorship brings eminent female physicists and astronomers on a short-term basis for collaborative research and discussions within the Department of Physics.

Host institution: UC San Diego

CECILIA PAYNE Gaposchkin Award

The Doctoral Dissertation Award in Astrophysics annually recognizes an exemplary doctoral thesis in this field. Nominations of women, members of underrepresented minority groups, and scientists from outside the United States are especially encouraged.

Host institution: American Physical Society

FUTURE OF PHYSICS AT CALTECH

The program welcomed 33 undergraduate women in 2018 for two days of networking and engaging in science discussions with Caltech faculty as they consider graduate school options.

Host institution: California Institute of Technology

DEBORAH JIN FELLOWSHIP UNIVERSITY OF COLORADO, BOULDER

The fellowship is in honor of renowned physicist Deborah (Debbie) Jin, and provides financial support for two graduate fellowships for women in physics and their mentors.

Host institution: University of Colorado Boulder

MIT: John Phelan, CC BY 3.0; Gaposchkin: Smithsonian Institution, en.wikipedia.org/wiki/Cecilia_Payne-Gaposchkin#/media/File:Cecilia_Helena_Payne_ Gaposchkin_(1900-1979)_(3).jpg; Caltech: Canon.vs.nikon, CC BY 3.0; UC Santa Cruz: Dynaflow, CC BY 3.0; Burbidge: Annie Gracy, CC BY-SA 4.0; University of Colorado: MECU, CC BY 3.0