2020 Alan H. Barrett Prize
Alexandra Hanselman SB ’20
Thesis supervisor: Scott A. Hughes
The Alan H. Barrett Prize honors the late Professor Alan H. Barrett’s outstanding influence in the education of physicists and his fundamental contribution to the science and technology of astrophysics. Awarded to a senior student with outstanding research in astrophysics. One thousand dollars is awarded to the winner.

2020 Malcolm Cotton Brown Award
Eleanor L. Graham SB ’20
Thesis supervisor: Lindley Winslow
The Malcolm Cotton Brown Award is given in memory of Lt. Malcolm Cotton Brown, Royal Air Force, who was killed in service on July 23, 1918. Awarded to a senior of high academic standing in physics and outstanding research in experimental physics. One thousand dollars is awarded to the winner.
2020 Morse/Orloff Award for Research

Megan C. Kralj SB’20
Thesis supervisor: David Kaiser

Sophie E. Fisher SB’20
Thesis supervisor: Marin Soljačić

The Morse/Orloff Award is given in memory of Philip Morse, late MIT Professor of Physics, one of the renowned physicists of the 20th century, whose contributions spanned from basic physics to engineering. Funds provided by Dr. and Mrs. Daniel Orloff in memory of their son Joel, a Physics major, who died in an automobile accident shortly after graduation from MIT in 1978. Awarded to one or more senior students in high academic standing, who plan to pursue graduate study in physics. One thousand dollars is awarded to each winner.

2020 Burchard Scholars

Keiran Lewellen SB’22, Physics

Sarah Weidman SB’21, Earth, Atmospheric and Planetary Sciences/Physics

The Burchard Scholars Program brings together distinguished members of the faculty and promising sophomores and juniors who have demonstrated excellence in some aspect of the humanities, arts, and social sciences, as well as in science and engineering. The Burchard Program format is a series of dinner-seminars held during the academic year to discuss topics of current research introduced by MIT faculty members. The Program is sponsored by the Dean’s Office, School of Humanities, Arts, and Social Sciences.
2020 Joel Matthew Orloff Awards

Service
Megan A. Yamoah SB ’20
Academic advisor: Janet Conrad

Isabelle Y. Phinney SB ’20
Academic advisor: Senthil Todadri

Scholarship
Vincent S. Liu SB ’20
Academic advisor: Riccardo Comin

Research
Megan A. Yamoah SB ’20

Research supervisor: William D. Oliver

The Joel Matthew Orloff Awards were established by Dr. and Mrs. Daniel Orloff in memory of their son Joel, a Physics major, who died in an automobile accident shortly after graduation from MIT in 1978. One thousand dollars is awarded to each award winner(s) in three categories:

Service—given to the student with the most outstanding service to the Department, Institute, or community.

Scholarship—given to the student with outstanding scholastic achievement in physics.

Research—given to the student with the most outstanding research in Physics.
2020 The Order of the Lepton Award winner Bahrudin Trbalic.

**The Order of the Lepton Award**

**Bahrudin Trbalic** SB’20

Academic advisor: Gunther M. Roland

Awarded to a graduating senior who best exemplifies the spirit and characteristics of MIT’s Physics students, this award is selected from nominations provided by graduating seniors. Established with gifts from alumni and friends of the Department, the Order of the Lepton embodies the community and collaboration that is one of the hallmarks of the MIT Physics Department. One thousand dollars is awarded to the winner.
2020 Sigma Pi Sigma Inductees

Election to Sigma Pi Sigma is based upon a student’s strong academic record. With over 90,000 members throughout its history, its purpose is to be of service to the broader physics community. It encourages scholarship in physics by admitting a student to the fellowship of others with similar interests and accomplishments. This year, MIT’s Physics Department inducts 11 new members.

Vilhelm L. Andersen Woltz
Allen Y. Cheng
Malvika R. Joshi
Sloan W. Kanaski
Kevin Limanta
Vincent S. Liu
Federico Llarena
Elina M. Sendonaris
Qingyue Wu
Michelle D. Xu
Megan A. Yamoah

2020 Phi Beta Kappa Inductees

Phi Beta Kappa is the oldest honor society in the United States of America. Less than 10% of the graduating class is invited, and selection is based upon academic record, dedication to the liberal arts and language skills. This year, MIT’s Chapter (Xi) of Phi Beta Kappa voted to invite 116 members of the Class of 2020, 20 of whom are physics majors, to membership in the Society.

Vilhelm (Billy) Anderson Woltz
Anuj Apte
Allen Y. Cheng
Jad A. Elmourad
Elizabeth M. Harkavy
Clyde E. Huibregtse
Sloan W. Kanaski
Robert Q. Kao
Ji Seok Kim
Daniel A. Korsun
Kathryn A. Lawrence
Kevin Limanta
Vincent S. Liu
Federico Llarena
Isaac W. Metcalf
Samuel A. Solomon
Francisca Vasconcelos
Michelle D. Xu
Megan A. Yamoah
Josephine J. Yu
Other Undergraduate Awards & Honors

**Siranush Babakhanova** (SB ’20) received an Honorable Mention in the 2020 Harold and Arlene Schnitzer Prize in the Visual Arts (MIT); and was awarded a 2020 Knight-Hennessy Scholarship, providing full funding for graduate studies in biophysics at Stanford University.

**Talya Klinger** (SB ’20, Academic advisor: Senthil Todadri) was awarded a 2020 Marshall Scholarship for graduate study at the University of Cambridge, UK.

**Ivy Li** (SB ’20, Physics/Literature) received a 2020 Fulbright grant from the U.S. Department of State for research at the Deutsches Elektronen-Synchrotron (DESY) to develop online tracking algorithms for long-lived particle searches in the ATLAS experiment. She also plans to attend readings and panel discussions hosted by the Literaturhaus Hamburg.

**Isaac Metcalf** (SB ’20, Materials Science/Physics) was awarded a 2020 Hertz Graduate Fellowship from the Fannie and John Hertz Foundation, one of just 16 students selected from a nationwide applicant pool of over 800. The fellowship will provide Isaac with support for five years of doctoral-level research study in materials science at Rice University.

**Nolan Peard** (SB ’20, Physics/Music) was awarded a 2020 Hertz Graduate Fellowship from the Fannie and John Hertz Foundation, one of just 16 students selected from a nationwide applicant pool of over 800. The prestigious fellowship will provide Nolan with support for five years of doctoral-level research study in applied physics at Stanford University.

**Bahrudin Trbalic** (SB ’20. Thesis advisors: Sean Robinson, Joseph Formaggio) was named a “Distinguished Peer for Public Service” by MIT’s Office of Minority Education for his commitment to public service and teaching, both at MIT and beyond; and was awarded seed funding by MIT’s Sandbox Seed Grant program for his “Expert Experiments” physics teaching start-up.

**Francisca Vasconcelos** (SB ’20, Electrical Engineering and Computer Science/Physics. Thesis advisors: William Oliver, Gunther Roland) was awarded a 2020 Rhodes Scholarship to fund postgraduate studies in mathematics and foundations of computer science, and statistical science, at the University of Oxford, UK; and received a 2020 National Science Foundation Graduate Research Fellowship.

**Michelle Xu** (SB ’20. Thesis advisor: Senthil Todadri) was awarded a National Science Foundation Graduate Research Fellowship, to support her graduate studies in theoretical physics beginning in Fall 2020.
Student Honors & Awards

Buechner Student Teaching Prize
Awarded to a graduate student for outstanding contributions to the educational program of the Department during the past academic year. The $1,000 prize was established in 1987 by the late Mrs. Christina Buechner in memory of her husband Prof. William Buechner, who served as Physics department head from 1962-1967.

2019 Hamed PakatchiShotorbannejad Hard Condensed Matter Theory
Thesis supervisor: Xiao-Gang Wen

2020 Mehdi Soleimanifar Quantum Information Science
Thesis supervisor: Aram Harrow

Martin Deutsch Student Award for Excellence in Experimental Physics
Created in 1987 in honor of Prof. Martin Deutsch’s outstanding career as an experimentalist and for his influence as an educator. One thousand dollars is awarded annually to a graduate student midway through his or her thesis research in any field, with preference for an experimentalist.

2019 Maggie Tse Astrophysics
Thesis supervisor: Matthew Evans

Haocun Yu Astrophysics
Thesis supervisor: Nergis Mavalvala

2020 Carina Belvin Experimental Condensed Matter Physics
Thesis supervisor: Nuh Gedik

Andrew M. Lockett III Memorial Fund Award
Awarded to a graduate student in theoretical physics, with preference given to students from Los Alamos, NM, and New Orleans, LA. The award currently carries a prize of $1,000. The award was established by Mrs. Lucille Lockett Stone in memory of her husband, Dr. Andrew M. Lockett, who received his PhD in physics from MIT in 1954.

2019 Hongwan Liu Theoretical Nuclear & Particle Physics
Thesis supervisor: Tracy Slatyer

2020 Jasmine Brewer Theoretical Nuclear & Particle Physics
Thesis supervisor: Krishna Rajagopal
Sergio Vazquez Prize

Established in memory of Sergio Vazquez, a graduate student in the Center for Theoretical Physics who was killed in an automobile accident on April 1st, 1990. One thousand dollars to be awarded annually to a graduate student with preference for a student from an underrepresented sector of the population who had to overcome racial, physical or financial barriers.

2019 Reynier Cruz Torres Experimental Nuclear & Particle Physics
Thesis supervisor: Or Hen

2020 Patrick Fitzpatrick Theoretical Nuclear & Particle Physics
Thesis supervisor: Tracy Slatyer

Other Graduate Honors & Awards

Leon Ding (Quantum Information Science. Thesis supervisor: William Oliver) received a 2020 IBM PhD Fellowship Award for "demonstrated expertise in [a] pioneering research area." Leon is one of just 24 winners selected from a pool of applicants from 140 universities in 31 countries.

Nick Kamp (Experimental Nuclear and Particle Physics. Thesis supervisor: Janet Conrad) was awarded a 2020 National Science Foundation Graduate Research Fellowship.

Julian Picard (Plasma Physics. Thesis supervisor: Richard Temkin) received Best Student Poster at the 2019 North American Particle Accelerator Conference; and the Best Student Paper Award at the 2019 Pulsed Power and Plasma Science Conference. Both awards recognized Julian’s work developing a laser-driven semiconductor switch that generates very short microwave pulses. This tool is now used at the STARRE (Sub-THz Accelerator Research Laboratory) Lab to test futuristic particle accelerator designs.

Sam Rodriques (Biophysics. Thesis supervisors: Ed Boyden, Jeff Gore) received the Fannie and John Hertz Foundation’s Doctoral Thesis Prize and Newman Entrepreneurial Initiative Award; was named a 2019 STAT Wunderkind; and named a finalist for the Regeneron Prize for Outstanding Research.

Yunjie Yang (Experimental Nuclear and Particle Physics. Thesis supervisor: Michael Williams) was awarded a 2019-2020 JSA/Jefferson Lab Graduate Fellowship.

Linda Ye (Experimental Condensed Matter Physics. Thesis supervisor: Joseph Checkelsky) received the 2020 Martin and Beate Block Winter Award at the Aspen Center for Physics; and was awarded a Marvin Chodorow Postdoctoral Fellowship at the Department of Applied Physics, Stanford University, for Fall 2020.

Alfred Zong (Experimental Condensed Matter Physics. Thesis supervisor: Nuh Gedik) was awarded a 2020-2023 Miller Research Fellowship from the University of California, Berkeley.