

DEPARTMENT OF PHYSICS
and
DEPARTMENT OF ASTRONOMY
CONVOCATION



I ILLINOIS

Convocation

Virtual Ceremony
May 16, 2020 at 12:30PM

Welcome Message

Spencer Hulsey, Class of 2020

Presentation of Graduates

Leslie W. Looney, Chair, Department of Astronomy
Professor of Astronomy

Matthias Grosse Perdekamp, Head, Department of Physics
Professor of Physics

Faculty Message

Vidya Madhavan
Professor of Physics

Undergraduate Programs

Ralph O. Simmons Research Scholarship

Established by Ralph O. Simmons, Physics alumnus (Ph.D, 1957) and department head (1970-1986), this scholarship allows talented University of Illinois undergraduate students to undertake hands-on research summer research projects. In addition to his superb administrative and leadership skills, Professor Simmons made seminal contributions to experimental condensed matter physics, including to our understanding of point defects in metals and to definitive measurements of the thermodynamic, defect, and dynamical properties of prototype solids formed from noble and other gases, in particular solid helium.

2020 Recipient: Ahmed Imran

This program contains an unofficial list of candidates for graduation in May 2019 and a list of graduates who received degrees in August and December 2018. Because of printing deadlines, names of some degree recipients may not appear, while names of some degree candidates who have not completed final degree requirements may be included.

Undergraduate Programs

Robert E. Hetrick Research Award

In recognition of outstanding undergraduate research by an undergraduate physics major.

2020 Recipient: Yufeng Du

Undergraduate Outreach Achievement Award

In recognition of the work of an outstanding undergraduate student involved in Physics Society and/or Physics Van.

2020 Recipients: Spencer Hulsey Japneet Singh

Yee Seung Ng Award

The Yee Seung Ng Award was established by family and friends of alumnus Yee Ng (BS, 1974) to recognize an outstanding junior or senior international engineering physics student.

2020 Recipients: Maggie Liu Yifei Liu

Mok Wing Ho Scholarship

This scholarship recognizes an undergraduate student for superior academic achievement and for demonstrated commitment to the field through participation in physics-related extra-curricular activities.

2020 Recipient: Nathan Ryan

Professor Vidya Madhavan

Professor Madhavan investigates fundamental problems in quantum materials where interactions between the spin, charge, and structural degrees of freedom lead to emergent phenomena. She uses the tools of scanning tunneling microscopy (STM), scanning tunneling spectroscopy (STS), spin-polarized STM (SP-STM) and molecular beam epitaxy (MBE) to unravel the mysteries of complex systems at the atomic scale. Her group carries out challenging, high-risk experiments, wherein the possibility of discovering new phenomena is high. Her team's recent work has focused on STM studies of complex oxides and monolayer films of topological materials and transition metal dichalcogenides.

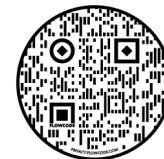
Professor Madhavan received her bachelor's degree in metallurgical engineering in 1991 from the Indian Institute of Technology, Chennai, and a master of technology degree in solid state materials in 1993 from the Indian Institute of Technology, New Delhi. She obtained her PhD from Boston University in 2000. She held a postdoctoral appointment at the University of California, Berkeley from 1999 to 2002, before joining the physics faculty at Boston College in 2002. She joined the faculty at Illinois in 2014 as a full professor.



Stay connected with us!

Physics Illinois is not a place, it's a habit of mind. The truest measure of the stature of our department lies in the achievements of our students, and we want to hear your stories. We depend on our alumni to keep us abreast of changes in the workplace that affect our teaching, to offer guidance and mentoring to current students, and to alert us to new opportunities.

Please take a minute to update your contact information at go.physics.illinois.edu/Alum. Providing your mailing address will ensure that you receive our newsletters and keep up to date on the people and activities of Physics Illinois.



Class of 2019-2020

Department of Physics

Joseph Dominick Adamo	Tangsheng Cheng	Mathew Phillip Hayes
Shreya Addanki	Benjamin Villalonga Correa	Zhaohan He
Divya Aggarwal	William Gabriel Darmawan	William Aidan Helgren
Julian Aldabe	Angela Maria Barragan Diaz	Austin Michael Hemken
Mohammad Altaf	Giovanni Concepcion Diaz	Kevin Eduardo Hernandez
Bingxue An	Anshul Biren Doshi	Joseph Andrew Hlevyack
Ritika Anandwade	Timothy James Draher	Christopher Daniel Ho
Jacob Eric Anderson	Yufeng Du	Sean T Howard
Katherine A Ansell	Punami C. Dukkipati	Jamie Travis Howell
Sohm Shailesh Apte	Surjo Shekhar Dutta	Heyuan Huang
Maxwell Johndro Aronsohn	Nader Emanjomeh	Wolfgang Matthias Huber
Carl Eric Ausmees	Andrew William Engel	Spencer Bailee Hulsey
Grace Catharine Avellar	Nirali Anand Eilatt	Benjamin David Hunt
David Ballines	John Regan Farwick	Ali Abdullah Husain
Alexander N. Bazil	Alex Ilieff Finnegan	Andrew David Ingram
Leia Barrowes	Joseph Thomas Foy	Elaine P Jaross
Asya Bavbek	Alexander S Freel	Weizhen Jia
Michael John Bengston	Sean Edward Frintner	Siddharth Jindal
Nirali Anand Bhatt	Nicholas Aron Gabrisko	Andong Jing
Kathleen Anne Bolan	Marcos Garcia	Hudson W A Jones
Brockton Stanley Brendal	Mergenbaatar Gerelbat	Dana Song Kim
Cole Joseph Brookhouse	Stephen Thomas Gill	Dongyoung Kim
Huacheng Cai	Eduardo Gonzalez-Martin	Hyun Jea Kim
Sergi C Castells	James Amthor Graessle	Seokhyun Kim
Jose Antonio Cerra	Marc Sean Graff	Jesse Lee Kiser
Michael George Chakinis	Paul Graham	Kin Lam
Barry Tzu-Jui Chiang	Sarah Mary Habib	Justin A Languido
Shu Chen	Michael Victor Habisohn	Ryan Alexander Lanner
Wei Chen	Tianyi Hao	Nicholas Laracuente
Xinan Chen	Juliana Kathryn Harr	Jarrett James Leuck

Undergraduate Programs

Philip J. and Betty M. Anthony Undergraduate Research Award

To support summer research positions for outstanding physics undergraduate students. Alumnus Philip J. Anthony (MS, 1975; PhD, 1978), a brilliant engineer and visionary inventor, has made pioneering contributions to photonic technologies and optical communications, including semiconductor lasers, dense wavelength division multiplexing components, optical interconnects, photonic switches, integrated optics, and optoelectronics packaging. He currently works as a venture capitalist in Silicon Valley.

2020 Recipients: Joseph Adamo Benjamin Mead
Kyle Nelli Yaashnaa Singhal
Zichen Wang

Richard K. Cook Scholarship

In recognition of an outstanding undergraduate engineering physics student at the end of his or her sophomore year. This award is named for Dr. Richard Cook, a 1935 PhD alumnus of our Department who spent his entire career at the National Bureau of Standards (now the National Institute of Standards and Technology [NIST]). Dr. Cook specialized in ultrasonics and acoustics.

2020 Recipients: Max Shepherd Lydia Spychalla

Robert A. Stein Scholarship

This award was named after Robert A. Stein, who received his BS degree in engineering physics from the University of Illinois in 1955. The Stein Award was endowed by the family and friends of Mr. Stein after his death in 1998. Mr. Stein greatly valued the education he received at the University of Illinois, and his family thought the best tribute to his memory would be to provide that opportunity to other Chicago-area youths.

2020 Recipients: Tamar Dallal Antonio Gonzalez

Undergraduate Programs

Laura B. Eisenstein Award

In recognition of an outstanding woman undergraduate student in physics. This award was established by the Department of Physics in cooperation with the American Physical Society and the Committee on the Status of Women in Physics to recognize exceptional woman physics students. It honors Dr. Laura B. Eisenstein, a distinguished biological physicist who made important discoveries of the mechanism of light energy transduction by biomolecules, using a variety of techniques including time-resolved resonance Raman and x-ray absorption spectroscopies. Professor Eisenstein served our department and the biological physics community with distinction.

2020 Recipient: Sarah Popenhagen

Lewis C. Hack Scholarship

This award is made possible by a bequest to the University of Illinois to honor Lewis C. Hack by his wife, Lois E. Hack. Both the Hacks devoted their lives to teaching in the public schools.

2020 Recipients: Samantha Lund Michelle McCord

Lorella M. Jones Summer Research Award

To support summer research positions for outstanding physics undergraduate students. This fellowship honors the late Professor Lorella M. Jones, an outstanding theoretical high energy physicist who served our department with distinction from 1968 to 1995. Professor Jones was a remarkable scholar—the first woman to attain tenure and full professorship in our department. In addition to being a superb researcher, Professor Jones was also a dedicated and innovative teacher who was particularly interested in the application of computers to physics education. In 1985, she pioneered the use of computerized quizzes for a large elementary physics course at Illinois, one of the earliest developments of its kind, nationwide.

2020 Recipients: Ritika Anandwade Zhouzhen Cai
Bore Annie Gao Samuel Qunell
Jing Zhou

Class of 2019-2020

Department of Physics

Jifu Li	Ramone Aries Randle	Dianzhuo Wang
Shouyan Li	Anil Radhakrishnan	Ge Wang
Yujie Liang	Jacob Jose Rangel	Hailin Wang
Haoyang Liu	Jake Joseph Ribich	Jianfei Wang
Joshua Hyochul Lim	Jonathan Richman	Kevin Yi Ping Wang
Hannah Jean Manetsch	Spencer George Rooke	Ningdong Wang
Adrian Manjarrez	Alexander James Rudd	Ryan Wang
Andi Mankolli	Michael Ilich Sandler	Zichen Wang
Yulia Maximenko	Mani Sawhney	Shoham Weiss
Jason Patrick Meier	Zachary W Scheffel	Brian Scott Wilens
Timothy Curtin Miller	Tanvi Sanjay Shah	Kara R Wong
Dayou Min	Ir-Jene Austin Shan	Ryan Wudtke
Kyle Edward Morrisey	Seyyedehrezvan Shahoei	Fengze Xie
Nayan Emmanuel Myerson-Jain	Rahul Sharma	Brian Y Xu
Barrett J Neath	Robert Tobias Sheffield	Diyu Yang
Kyle Christopher Nelli	Tongchuan Shen	Yuhao Ye
Alexandria R L Nolan	Taylor Nicole Shimek	Yusen Ye
Jackson Okech Ang Ong	Tanya Sinha	John Yukio Yoritomo
Ang A	Danylo Sovgut	Matthew D Young
Charmi Shaileshkumar Patel	Pengyue Sun	Jacob W Zeeb
Tomas Pavydis	Wuyue Sun	Haotan Zhang
Brian Phouthavong	Jonathan Andrew Sutkowski	Jiayuan Zhang
Damerick Tyrell Perry	Ryan Forrest Torbet	Kaiwen Zhang
Anders Werner Petterson	Bing Jyun Tsao	Matt Zhang
Sarah Kathleen Popenhagen	Brianna C Undzis	Shuyu Zhang
Kevin S. Rajan	Bhairav Shailesh Valera	Tiansi Zhang
Ramone Aries Randle	Paul Samuel Vandeventer	Yifan Zhang
Sarah Kathleen Popenhagen	Daniel Edward Vaz	Yiqing Zhou
Kevin S. Rajan	Timothy Wachter	Zhaoqing Zhu
	Jakab Walters	Charles Zoller

Physics at the University of Illinois

Instruction in engineering at the University of Illinois began in 1870, three years after the University was founded. The engineering “faculty” was one man, Stillman Robinson, a mechanical engineer. As a cornerstone of engineering education, Professor Robinson developed and taught a course in physics, which included lecture-room demonstrations and laboratory practice—a pedagogical approach considered very novel at that time.

Physics first became a separate department in 1890, with Samuel V. Stratton as head. Stratton greatly expanded the work in theoretical and applied electricity. He introduced and equipped a curriculum in electrical engineering, a subject that was especially stimulated by the increasing use of an 1879 invention, the incandescent filament lamp (light bulb).

From 1896 to 1929, head A.P. Carman developed the educational pattern that still characterizes university departments of physics. Large numbers of engineering and science students were taught in the basic courses. Graduate study and research were introduced, and the first two PhD degrees were granted in 1910; by 1929, thirty-six had been granted. Until after World War II, physics was not widely recognized as a vocation or profession, and few students studied undergraduate physics.

Research in physics took new directions when F. Wheeler Loomis became head of the department in 1929. At that time, the understanding of the nature of matter in terms of atomic and quantum theory was opening up in an exciting way. Research first expanded into atomic and molecular spectroscopy and nuclear physics. After World War II, research began in solid-state and low-temperature physics, high-energy physics, plasma physics, and astrophysics.

In the 1970s, Hans Frauenfelder launched the new discipline of biological physics at Illinois, and we have since added programs in Atomic-Molecular-Optical (AMO) physics and physics education research. We are world-renowned for our #1-ranked program in condensed matter physics.

You and your classmates have made your own unique contributions to Physics Illinois. You have provided the “laboratory” for us to test our continuing innovations in physics teaching. You have sustained one of the University’s most successful outreach programs with the Physics Van and expanded the activities in our student organizations to promote scholarship and inclusiveness. You have integrated intellectual learning with practical experience, and you have inspired us with your curiosity, your creativity, and hard work. We have started you on your way, and you will always have an intellectual home here in Loomis Lab.

Undergraduate Programs

Jeremiah D. Sullivan Undergraduate Research Award

The Jeremiah D. Sullivan Fund for Support of Undergraduate Research was established by Jeremiah’s family and friends to support talented, deserving undergraduates in their first experience in hands-on physics research. Professor Sullivan’s scientific career superbly integrated pioneering research contributions in both theoretical high-energy physics and in arms control and international security. He served as a faculty member in the Department of Physics from 1967 to his retirement in 2006, including as department head (2000–2006). In 2000, he received the American Physical Society’s Leo Szilard Lectureship Award in recognition of “his leadership in confronting the difficult and often controversial issues of national security in the academic environment, for his extensive public service in the fields of arms control and disarmament, and for his decades-long commitment to open and rational discussion and analysis of these issues.”

2020 Recipient: Kavya Vaidya

John A. Gardner Undergraduate Summer Research Award

To support summer research positions for outstanding physics undergraduate students.

Alumnus Dr. John A. Gardner, Jr. (MS, 1963; PhD, 1966) has made important contributions to materials physics. At the age of 48, Gardner lost his eyesight, leading him to develop creative new tools and techniques to access data and carry on his ambitious research program. In 1996, he founded ViewPlus Technologies, a world-leader in the development and manufacturing of assistive technologies for people with sensory and learning disabilities.

2020 Recipient: Edward Shea

Undergraduate Programs

A.C. Anderson Undergraduate Research Scholar

To support summer research positions for outstanding physics undergraduate students. The award is named for Ansel C. Anderson, Physics Illinois alumnus (PhD, 1961), faculty member (1962-1992), and department head (1986-1992). Professor Anderson, a condensed matter experimentalist, made seminal contributions to low-temperature physics, particularly on the thermal properties of metals and glasses.

2020 Recipients: Zhuo Chen Shunyue Yuan

Commonwealth Edison Scholarship/Beryl Bristow Endowed Scholarship

In recognition of an outstanding woman physics major. This award is named for Beryl Love Bristow, the first woman to receive both a bachelor's degree (1918) and a master's degree (1919) in physics from the University of Illinois. At that time, the U of I had only 5000 students and 12 buildings, and tuition cost \$11 per semester. Mrs. Bristow was inspired by her own mother, who graduated in 1883 from Illinois with a major in mathematics, the first woman ever allowed to take a math course at Urbana. After graduation, Mrs. Bristow was employed by the Commonwealth Edison Company in Chicago as a mathematician in the science department. To honor her pioneering spirit, Commonwealth Edison created this award to recognize women in physics.

2020 Recipients: Annie Gao Anna Przybyl

Ernest Lyman Prize

In recognition of the year's outstanding senior in physics. This award is named after Professor Ernest M. Lyman, a distinguished researcher and teacher who served on our faculty for 36 years. In addition to making seminal contributions to experimental nuclear physics, he was a world expert on electron scattering. Professor Lyman maintained great interest in teaching undergraduate physics and was one of the early proponents of computer-assisted physics education.

2020 Recipients: Barry Chiang Hannah Manetsch

Class of 2019-2020

Department of Astronomy

Physics & Astronomy

Nirali Anand Bhatt	Alexander J. Rudd	Hailin Wang
Yujie Liang	Danylo Sovgut	Ryan Wudtke
Charmi S. Patel	Pengyue Sun	Haotan Zhang

Computer Science & Astronomy

Artsiom Balakir	Jonathan Kaberon	Richard T Scherrer
Vivek Bhookya	Yufeng Luo	Elizabeth A De Sa E Silva
Jakob Grootens	Alexander Moore	Nathan Michael Turcich
Archit Gupta	Devanshi Pratap	Charles David Young
Lily T Ho	Ethan Maxwell Rane	Zitao Zhu

Astronomy

Rafique Ali	Jacob William Hogan	Kyle Christopher Nelli
Ashvini Krishnan	Yuxuan Hu	Vivian Perez
Leia Barrowes	Angela Anna Iwanicki	Sonny Theresa Podlesnik
Aisyah Nur Iman Binti	Logan Michael Kimball	Aisyah Nur Iman Binti
Barry Tzu-Jui Chiang	Tomas Tsung-Mao Liu	Rafique Ali
Victoria Ruth Colthurst	Nikhil Makhijani	Robert A Sells
Matthew M. Elketroussi	Sriharsha A. Marupudi	Charmi K Shah
Lina M Florez	Jason Patrick Meier	Alexander M. Shepard
Lauren Marie Gregory	Daniel Kevin Montoya	Jonathan Victor
Andrew Victor Groesch	Chauncey T. Murphey	Yi Zhuang
Anushri Gupta	Andrew Wade Nadolski	

Astronomy at the University of Illinois

Astronomy at Illinois takes science to the largest scales of space and time, from the big bang to today. Faculty and student research spans the big bang, black holes, the births of stars and their deaths in fiery explosions, and the formation and evolution of galaxies. Illinois astronomers work at wavelengths from radio to gamma ray, and with multimessenger probes of the cosmos in gravity waves, neutrinos, and cosmic rays. Our facilities include the Dark Energy Survey, the South Pole Telescope, and the Large Synoptic Survey Telescope, and national super-computing facilities located on campus.

Undergraduate Programs

2019-2020 Society of Physics Students

President: Siddharth Jindal Secretary: Rishi Chandra
Vice President: Benjamin Mead Internal Affairs: Vishwa Mallampooty
Outreach Officer: Nicholas Nusgart Charity Officer: Anmol Raina
Treasurer: Peyton Pielet

2019—2020 Society of Women in Physics

President: Hannah Manetsch Treasurer: Jamie Milota
Vice-President: Ritika Anandwade Secretary: Yaashnaa Singhal

2020-2020 Physics International

President: Sohm Apte Vice-President: Leo Oshiro

Undergraduate Programs

Chancellor's Scholars (Graduating Seniors)

Zachary W Scheffel

James Scholars (Graduating Seniors)

Joseph T. Foy Jason P. Meier
Dianzhuo Wang

Bronze Tablet

Yufeng Du Kyle Nelli

Astronomy Awards

Stanley Wyatt Memorial Award

Barry Chiang Kyle Nelli

Layla Suzanne Ryan Memorial Scholarship

Lina Florez