# The Enrico Fermi Institute

Director

- Edward Blucher, Physics

Professors

- Edward Blucher, Physics
- John Eric Carlstrom, Astronomy & Astrophysics and Physics
- Cheng Chin, Physics
- Fred Ciesla, Geophysical Sciences
- Juan Collar, Physics
- Andrew Davis, Geophysical Sciences
- Henry J. Frisch, Physics
- Luca Grandi, Physics
- Jeffrey A. Harvey, Physics
- Daniel E. Holz, Physics and Astronomy & Astrophysics
- Wayne Hu, Astronomy & Astrophysics
- William Irvine, Physics
- Young Kee Kim, Physics
- Edward W. Kolb, Astronomy & Astrophysics
- Andrey Kravtsov, Astronomy & Astrophysics
- David Kutasov, Physics
- Emil J. Martinec, Physics
- Jeffrey McMahon, Astronomy & Astrophysics and Physics
- David W. Miller, Physics
- Sidney Nagel, Physics
- Paolo Privitera, Astronomy & Astrophysics and Physics
- Robert Rosner, Astronomy & Astrophysics and Physics
- David Schmitz, Physics
- Savdeep Sethi, Physics
- Melvyn Shochet, Physics
- Dam Thanh Son, Physics
- Abigail Vieregg, Physics and Astronomy & Astrophysics
- Carlos Wagner, Physics
- Yau W. Wah, Physics
- Scott P. Wakely, Physics
- Robert M. Wald, Physics
- Liantao Wang, Physics
- Paul B. Wiegmann, Physics

Associate Professors

- Damiano Caprioli, Astronomy & Astrophysics
- Clay Córdova, Physics

Assistant Professors

- Karri DiPetrillo, Physics
- Keisuke Harigaya, Physics

Part-Time Faculty

- Marcela Carena, Professor of Physics (part-time with Fermilab)
- Bonnie T. Fleming, Professor of Physics (part-time with Fermilab)
- Guy Savard, Professor of Physics (part-time with Argonne)

Emeritus Faculty

- Robert P. Geroch, Physics
- Lawrence Grossman, Geophysical Sciences
- Craig Hogan, Astronomy & Astrophysics
- Edward James Kibblewhite, Astronomy & Astrophysics
- Arieh Königl, Astronomy & Astrophysics
- Donald Q. Lamb, Astronomy & Astrophysics
- Stephan Meyer, Astronomy & Astrophysics and Physics
- Frank S. Merritt, Physics
- Takeshi Oka, Astronomy & Astrophysics and Chemistry
- Angela Olinto, Astronomy & Astrophysics
- Mark J. Oreglia, Physics
- James E. Pilcher, Physics
- Michael S. Turner, Astronomy & Astrophysics and Physics

The Enrico Fermi Institute (http://efi.uchicago.edu/) is a Physical Sciences unit of the University devoted to interdisciplinary research. It was founded shortly after the Second World War as the "Institute for Nuclear Studies" and is now named in honor of Enrico Fermi, who was one of the founders and a distinguished member of the Institute. All faculty members in the Institute hold joint appointments in one or more of the following departments: Physics (http://physics.uchicago.edu/), Astronomy and Astrophysics (http://astro.uchicago.edu/), Chemistry (http://chemistry.uchicago.edu/), Geophysical Sciences (http://geosci.uchicago.edu/), and Mathematics (http://math.uchicago.edu/). Graduate students and postdoctoral scholars working with these faculty members also hold appointments and perform their research in the Institute.

The experimental disciplines currently being pursued include: high-energy particle physics, high-energy astrophysics, studies of particles and fields in the solar system and in space, infrared and optical astronomy, nuclear cosmo-chemistry, geochemistry, scanning electron and proton microscopy, the dark energy search, and solar energy concentration. Theoretical studies include physics of elementary particles, quantum field theory, theoretical astrophysics and solar physics, plasma physics, cosmology, and general relativity.

The Enrico Fermi Institute provides engineering, technical and administrative support for the academic members and students. It includes a state-of-the-art electronics development group and facilities for mechanical design and construction, as well as computational equipment. Special resources include environmental test equipment, large-scale assembly facilities, computer aided design facilities, etc. This makes possible the design of complex instruments, and the in-house construction of detectors needed for experiments in the laboratory, with high-energy particle accelerators, on high-altitude balloons, and in space on satellites, deep space probes and the space shuttle. Some of the high-energy physics activity takes place at theFermi National Accelerator Laboratory (http://www.fnal.gov/) ("Fermilab"), one hour's driving distance from the campus, the LEP/LHC facility at CERN in Geneva, Switzerland and J-PARC in Japan. Offices and laboratories for faculty, students, and staff are located in: the Michelson Center for Physics (formerly Lab for Astrophysics and Space Research), the Eckhardt Research Center, the Hinds Laboratory and the Young Memorial Building. The Eckhardt Research Center (ERC), replaced the Research Institutes building that stood at the corner of Ellis and 57th Street for more than 50 years, is the home of the Astronomy and Astrophysics faculty. The Kavli Institute for Cosmological Research now also occupies space in the ERC. The Michelson Center for Physics is the home of the Enrico Fermi Institute (EFI) which includes the High-Energy/Particle Physics group, along with the Leinweber Institute for Theoretical Physics and the PSD Engineering and Technical Services group and stands at 933 East 56th Street. Faculty in Geophysical Sciences have offices and labs in the Hinds Laboratory at 5734 South Ellis Avenue. The EFI Electronics Development Group is located on the third floor of the Young Memorial Building which is one of the oldest buildings on campus and was formerly known as the Chicago Home for Incurables.

The Enrico Fermi Institute annually awards Enrico Fermi, Robert R. McCormick, and Mafalda & Reinhard Oehme Postdoctoral Fellowships on a worldwide competitive basis to recent Ph.D. recipients in astronomy, chemistry, physics, or planetary sciences. The purpose of these fellowships is to enable young scientists to work either independently or in close association with present members of the Institute in areas of mutual interest. The intellectual life in the Institute is enhanced by frequent visitors, Visiting Scholars and Distinguished Visiting Professors. The Institute also sponsors a popular Saturday morning public lecture series in the autumn and spring quarters, the Arthur H. Compton Lectures (https://efi.uchicago.edu/events/compton-lecture-series/).

Chicago Pile No. 1 (CP-1) was constructed in a makeshift laboratory under the grandstands of Stagg Field Stadium on the University of Chicago campus. It was here that Enrico Fermi and his colleagues achieved the first self-sustaining controlled release of nuclear energy on December 2, 1942. The Michelson Center for Physics has a graphite block from the December 1942 experiment included in a display about Leo Szilard. In 1965, the site

was designated a registered national historic landmark. The University celebrated the 75th-anniversary of this achievement in autumn 2017.