



Larry Leinweber

\$20 million gift supports theoretical physics research and education at MIT

Gift from the Leinweber Foundation, in addition to a \$5 million commitment from the School of Science, will drive discovery, collaboration, and the next generation of physics leaders.

by Julia C. Keller, School of Science



LEINWEBER FOUNDATION

A \$20 million gift from the Leinweber Foundation, in addition to a \$5 million commitment from the MIT School of Science, will support theoretical physics research and education at MIT.

Leinweber Foundation gifts to seven institutions, exceeding \$100 million, will establish the newly renamed MIT Center for Theoretical Physics - A Leinweber Institute within the Department of Physics, affiliated

with the Laboratory for Nuclear Science at the School of Science, as well as Leinweber Institutes for Theoretical Physics at four other top research universities: Stanford University, the University of Michigan, the University of California at Berkeley, and the University of Chicago, as well as a Leinweber Forum for Theoretical Physics at the California Institute of Technology and a Leinweber Forum for Theoretical and Quantum Physics at the Institute for Advanced Study.

“MIT has one of the strongest and broadest theory groups in the world,” says Professor Washington Taylor, the director of the newly funded center and a leading researcher in string theory and its connection to observable particle physics and cosmology.

“This landmark endowment from the Leinweber Foundation will enable us to support the best graduate students and postdoctoral researchers to develop their own independent research programs and to connect with other researchers in the Leinweber Institute network. By pledging to support this network and fundamental curiosity-driven science, Larry Leinweber and his family foundation have made a huge contribution to maintaining a thriving scientific enterprise in the United States in perpetuity.”

The Leinweber Foundation’s investment across seven institutions—constituting the largest philanthropic commitment ever for theoretical physics research, according to the Science Philanthropy Alliance, a nonprofit organization that supports philanthropic support for science—will strengthen existing programs at each institution and foster collaboration across the universities. Recipient institutions will work both independently and

collaboratively to explore foundational questions in theoretical physics. Each institute will continue to shape its own research focus and programs, while also committing to big-picture cross-institutional convenings around topics of shared interest. Moreover, each institute will have significantly more funding for graduate students and postdocs, including fellowship support for three to eight fully endowed Leinweber Physics Fellows at each institution.

“This gift is a commitment to America’s scientific future,” says Larry Leinweber, founder and president of the Leinweber Foundation. “Theoretical physics may seem abstract to many, but it is the tip of the spear for innovation. It fuels our understanding of how the world works and opens the door to new technologies that can shape society for generations. As someone who has had a lifelong fascination with theoretical physics, I hope this investment not only strengthens

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The gift to MIT will create a postdoc program that, once fully funded, will initially provide support for up to six postdocs, with two selected per year for a three-year program. In addition, the gift will provide student financial support, including fellowship support, for up to six graduate students per year studying theoretical physics. The goal is to attract the top talent to the MIT Center for Theoretical Physics – A Leinweber Institute and support the ongoing research programs in a more robust way.

A portion of the funding will also provide support for visitors, seminars, and other scholarly activities of current postdocs, faculty, and students in theoretical physics, as well as helping with administrative support.

“Graduate students are the heart of our country’s scientific research programs. Support for their education to become the future leaders of the field is essential for the advancement of the discipline,” says Nergis Mavalvala, dean of the MIT School of Science and the Curtis (1963) and Kathleen Marble Professor of Astrophysics.

The Leinweber Foundation gift is the second significant gift for the center. “We are always grateful to Virgil Elings, whose generous gift helped make possible the space that houses the center,” says Deepto Chakrabarty, head of the Department of Physics. Elings PhD ’66, co-founder of Digital Instruments, which designed and sold scanning probe microscopes, made his gift more than 20 years ago to support a space for theoretical physicists to collaborate.

“Gifts like those from Larry Leinweber and Virgil Elings are critical, especially now in this time of uncertain funding from the federal government for support of fundamental scientific research carried out by our nation’s leading postdocs, research scientists, faculty, and students,” adds Mavalvala.

Professor Tracy Slatyer, whose work is motivated by questions of fundamental particle physics, particularly the nature and interactions of dark matter, will be the subsequent director of the MIT Center for Theoretical Physics – A Leinweber Institute beginning in fall 2025. Slatyer will join Mavalvala, Taylor, Chakrabarty, and the entirety of the theoretical physics community for a dedication ceremony planned for the near future.

The Leinweber Foundation was founded in 2015 by software entrepreneur Larry Leinweber, and has worked with the Science Philanthropy Alliance since 2021 to shape its philanthropic strategy. “It’s been a true pleasure to work with Larry and the Leinweber family over the past four years and to see their vision take shape,” says France Córdova, president of the Science Philanthropy Alliance. “Throughout his life, Larry has exemplified curiosity, intellectual openness, and a deep commitment to learning. This gift reflects those values, ensuring that generations of scientists will have the freedom to explore, to question, and to pursue ideas that could change how we understand the universe.”