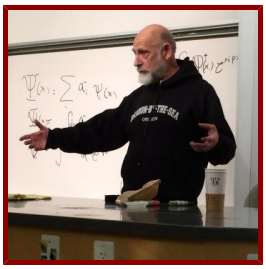
Stanford



Leonard Susskind

Felix Bloch Professor of Physics

CONTACT INFORMATION

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Bio

BIO

Leonard Susskind is the Felix Bloch professor of Theoretical physics at Stanford University. His research interests include string theory, quantum field theory, quantum statistical mechanics and quantum cosmology. He is a member of the National Academy of Sciences of the USA, and the American Academy of Arts and Sciences, an associate member of the faculty of Canada's Perimeter Institute for Theoretical Physics, and a distinguished professor of the Korea Institute for Advanced Study.

Susskind is widely regarded as one of the fathers of string theory, having, with Yoichiro Nambu and Holger Bech Nielsen, independently introduced the idea that particles could in fact be states of excitation of a relativistic string. He was the first to introduce the idea of the string theory landscape in 2003.

ACADEMIC APPOINTMENTS

- Professor, Physics

ADMINISTRATIVE APPOINTMENTS

- Director, Stanford Institute for Theoretical Physics, (2009- present)

HONORS AND AWARDS

- J. J. Sakurai Prize for Theoretical Particle Physics, American Physical Society (1998)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, National Academy of Sciences (2000 - present)

PROFESSIONAL EDUCATION

- Ph.D., Cornell University , Physics (1965)
- B.S., City College of New York , Physics (1962)

LINKS

- The Theoretical Minimum lecture series: http://theoreticalminimum.com
- Publications on arXiv: http://arxiv.org/find/all/1/all:+AND+leonard+susskind/0/1/0/all/0/1

- Publications on INSPIRE: http://inspirehep.net/search?ln=en&p=leonard+susskind

Teaching

COURSES

2025-26

- Graduate Student Seminar in Theoretical Physics: PHYSICS 453 (Aut)
- The Early Universe: PHYSICS 362 (Win)

2023-24

- Advanced Topics in Quantum Mechanics: PHYSICS 134, PHYSICS 234 (Win)
- The Early Universe: PHYSICS 362 (Spr)

2022-23

- The Early Universe: PHYSICS 362 (Spr)

Publications

PUBLICATIONS

- **THE WORLD AS A HOLOGRAM** *JOURNAL OF MATHEMATICAL PHYSICS*
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- **Quantum Gravity in the Lab. I. Teleportation by Size and Traversable Wormholes** *PRX QUANTUM*
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- **Entanglement in De Sitter space** *JOURNAL OF HIGH ENERGY PHYSICS*
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- **De Sitter Holography: Fluctuations, Anomalous Symmetry, and Wormholes** *UNIVERSE*
  Susskind, L.
  2021; 7 (12)
- **Complexity and momentum** *JOURNAL OF HIGH ENERGY PHYSICS*
  Susskind, L., Zhao, Y.
  2021
- **Complexity and Newton's Laws** *FRONTIERS IN PHYSICS*
  Susskind, L.
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- **The Python's Lunch: geometric obstructions to decoding Hawking radiation** *JOURNAL OF HIGH ENERGY PHYSICS*
  Brown, A. R., Gharibyan, H., Penington, G., Susskind, L.
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- **Complexity geometry and Schwarzian dynamics** *JOURNAL OF HIGH ENERGY PHYSICS*

Lin, H. W., Susskind, L.
2020

- **Complexity geometry of a single qubit** *PHYSICAL REVIEW D*
Brown, A. R., Susskind, L.
2019; 100 (4)
- **Complexity of Jackiw-Teitelboim gravity** *PHYSICAL REVIEW D*
Brown, A. R., Gharibyan, H., Lin, H. W., Susskind, L., Thorlacius, L., Zhao, Y.
2019; 99 (4)
- **Falling toward charged black holes** *PHYSICAL REVIEW D*
Brown, A. R., Gharibyan, H., Streicher, A., Susskind, L., Thorlacius, L., Zhao, Y.
2018; 98 (12)
- **Teleportation through the wormhole** *PHYSICAL REVIEW D*
Susskind, L., Zhao, Y.
2018; 98 (4)
- **Second law of quantum complexity** *PHYSICAL REVIEW D*
Brown, A. R., Susskind, L.
2018; 97 (8)
- **de Sitter Space as a Resonance** *PHYSICAL REVIEW LETTERS*
Maltz, J., Susskind, L.
2017; 118 (10)
- **Quantum complexity and negative curvature** *PHYSICAL REVIEW D*
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- **Copenhagen vs Everett, Teleportation, and ER=EPR** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*
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- **The typical-state paradox: diagnosing horizons with complexity** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*
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