Stanford Linear Accelerator Center

SLAC is one of the world 's leading research laboratories. Established in 1962, it is located at Stanford University in Menlo Park, CA. Our mission is to design, construct and operate state-of-the-art electron accelerators and related experimental facilities for use in high-energy physics and synchrotron radiation research.

- Recognized internationally with 3,000 visiting scientists from US universities, national laboratories, industrial concerns and foreign countries.
- Highly trained and award winning staff of physicists, engineers, computer scientists and other professionals.
- Work recognized with three Nobel Prizes in physics.

SLAC is operated by Stanford University for the US Department of Energy

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Visit us at 2575 Sand Hill Road, Menlo Park, CA 94025

Public tours available by reservation.
Call 650-926-2204 or visit the Public Affairs website.

3-D Imaging in structural Molecular Biology

Synchrotron Radiation Research

Scientists probe the structure of matter at the atomic and molecular scale with x-rays from the synchrotron light source facility called SPEAR. X-rays are produced when electrons travel around a storage ring and emit radiation. This radiation is intense and highly polarized, and especially suited to studies in biology, chemistry, biomedical and environmental science. See the SSRL User Science Highlights in biological, life, and materials science.

High-Energy Physics and Astroparticle Physics

Searching for answers to fundamental questions about the ultimate structure of matter and the forces between these fundamental particles, scientists use accelerators which speed electrons and anti-electrons to nearly the speed of light, and study their collisions and collisions from fixed target experiments. Using similar technology in astrophysics, space-based detectors will help us understand the birth and evolution of the universe.

Proposed Gamma-Ray Space Telescope

Technology and Education

As our knowledge in these areas advances, so must the power and precision of our scientific instruments. SLAC plays an important role in developing tomorrow's technologies: cutting-edge science demands the ultimate in machine performance. In addition to conducting basic research and advancing technologies, SLAC plays a vital role in training tomorrow' s scientists and engineers through a variety of education programs.

Find out about our research activities

| Home | About SLAC/Our Research | Mission | To Reach Us | Media Info |
| Education | Employment | Tours of SLAC | SPIRES |

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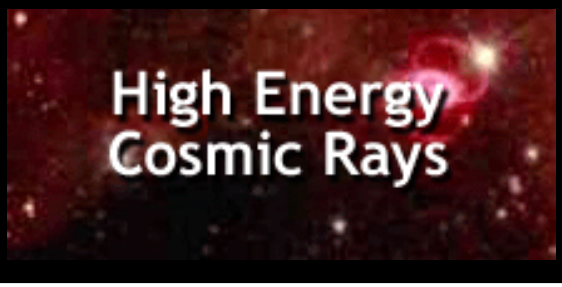
Stanford Linear Accelerator Center Virtual Visitor Center

EXPLORE THE VIRTUAL VISITOR CENTER

The Virtual Visitor Center website is intended for the general public, particularly students and teachers. Anyone with an interest in the science we study at Stanford Linear Accelerator Center and the tools we use in that study is invited to explore this web site -- and to visit our physical site and its real visitor center as well.

Use the images below to enter

Exploring Particles and Interactions



Use the icons below to enter the main sections, search for a topic of interest, look at the table of contents, take a photo tour, or review the navigation tips.

The Linear Accelerator at SLAC and how it works.

Examples of electron beams and synchrotron X-rays applications developed for medical, biological, and industrial uses.

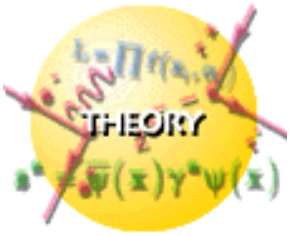
Particle detectors at SLAC. What are they? How do they work?

Current and planned experiments at SLAC, research on the cutting edge of particle physics.

A brief history of significant milestones, photos of the construction of SLAC, and how the beam lines have changed since construction.

Did you know that work resulting in three separate Nobel prizes was carried out at SLAC?

Stanford Synchrotron Radiation Laboratory (SSRL), a SLAC division studying atomic and molecular scale structure with synchrotron-produced x-rays.



The theory behind particle physics. What do we seek to learn?

Acknowledgements

Environment Paleo Cosmic Rays

Accelerators	Applications	Detectors	Experiments	History	Nobel	SSRL	Theory
Electron Gamma Shower...Explained	High Energy Cosmic Rays
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