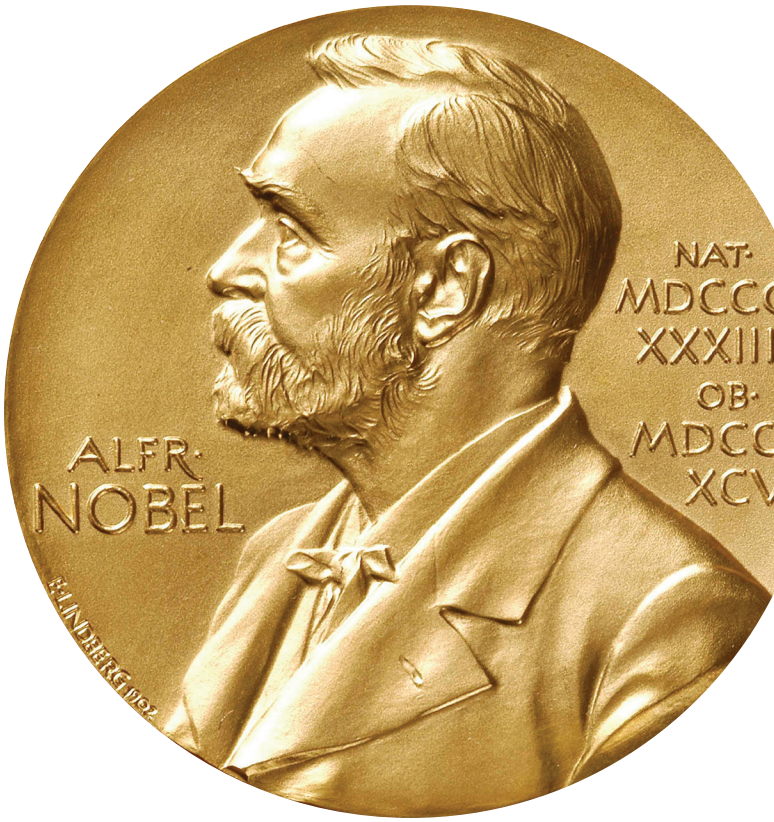
SLAC by the numbers

As one of **17** Department of Energy national labs, SLAC explores how the universe works from the farthest galaxies to atomic particles deep underground. Our record-breaking facilities build a brighter future through discovery and innovation.



Founded in **1962** with **200** employees.

Today, we have more than **2,000** employees plus over **500** postdocs and grad students.

Thousands of researchers from around the world use our cutting-edge facilities.

4 Nobel prizes awarded to **6** laureates for research at SLAC that discovered **2** fundamental particles, proved protons are made of quarks and showed how DNA directs protein manufacturing in cells.

Our linear accelerator structure is **3,073.72** meters (**1.9** miles) long– one of the longest modern buildings on Earth.

Electrons zip down the accelerator at **669,600,000** miles per hour– **99.9999999%** of the speed of light.

The energy each electron gains is equivalent to **33 billion** AA batteries.

Technology we're developing could make future accelerators up to **1,000** times shorter.



Research at SLAC

- X-ray & ultrafast science
- Physics of the universe
- Advanced accelerators
- Science of life
- New technologies
- Energy sciences

SLAC NATIONAL ACCELERATOR LABORATORY

Stanford University

U.S. DEPARTMENT of ENERGY



330 universities and research institutes make use of our resources.

60 companies use our X-ray facilities for research aimed at developing medicines and other products.

SLAC works with Stanford University in **6** joint research centers and facilities that focus on cosmology and astrophysics, materials and energy sciences, batteries, cryogenic electron microscopy, catalysis and ultrafast science.

The new linear accelerator operates at **-456** degrees F, colder than outer space.

When upgrades are complete, the new X-ray laser beam will more than double its energy, firing **a million** X-ray pulses per second **– 8,000x** the rate of its predecessor.

Our upgraded X-ray laser will churn out up to **40 terabytes** of data per second – that's like streaming over **1,000** full-length movies each second.

Our labs create **36-million-degree-F** matter that mimics extreme conditions in the hearts of stars and planets, and pressures equivalent to **5,200** large African elephants stacked on **1** square inch of ground.

The **3,200-megapixel** LSST Camera we designed and built for the world's deepest sky survey will shoot the equivalent of **800,000 8-megapixel** digital camera images per night for **10** years.

SLAC's highest experiment orbits **300+** miles overhead at **17,400** miles per hour and has discovered **200+** pulsars.

SLAC's deepest experiment will hunt for dark matter in a Canadian nickel mine **6,800** feet below ground.

Our telescope near the South Pole looks for cosmic inflation in the **first trillionth of a trillionth of a trillionth** of a second after the Big Bang.

Our STEM programs reach over **2,000** community members each year through Community Day, public tours, outreach events and educational initiatives.

In **1975** the Homebrew Computer Club began meeting at SLAC and helped spark the personal computing revolution.

In **1991** we opened the **1st** website in North America. It helped physicists share their research results.

SLAC scientists created the **1st** working touchscreen and obtained the **2nd** U.S. touchscreen patent.

SLAC's **1st** scientific discovery was a **14-million-year-old** fossil, Neoparadoxia repenningi, found in **1964** during excavation for the linac.





Front left image: Aerial of the SLAC National Accelerator Laboratory campus. (All photos by Olivier Bonin/SLAC National Accelerator Laboratory, unless otherwise noted)

From top: SLAC employees gathered at the Quad; two spiral galaxies of the Virgo Cluster (NSF–DOE Rubin Observatory/NOIRLab/SLAC/AURA); Adele Panofsky (center) showing SLAC's 1st scientific discovery, a Neoparadoxia repenningi fossil, found in 1964 during excavation for the linac. (SLAC National Accelerator Laboratory)

SLAC is operated by Stanford University for the U.S. Department of Energy Office of Science.

INC0534528-112026