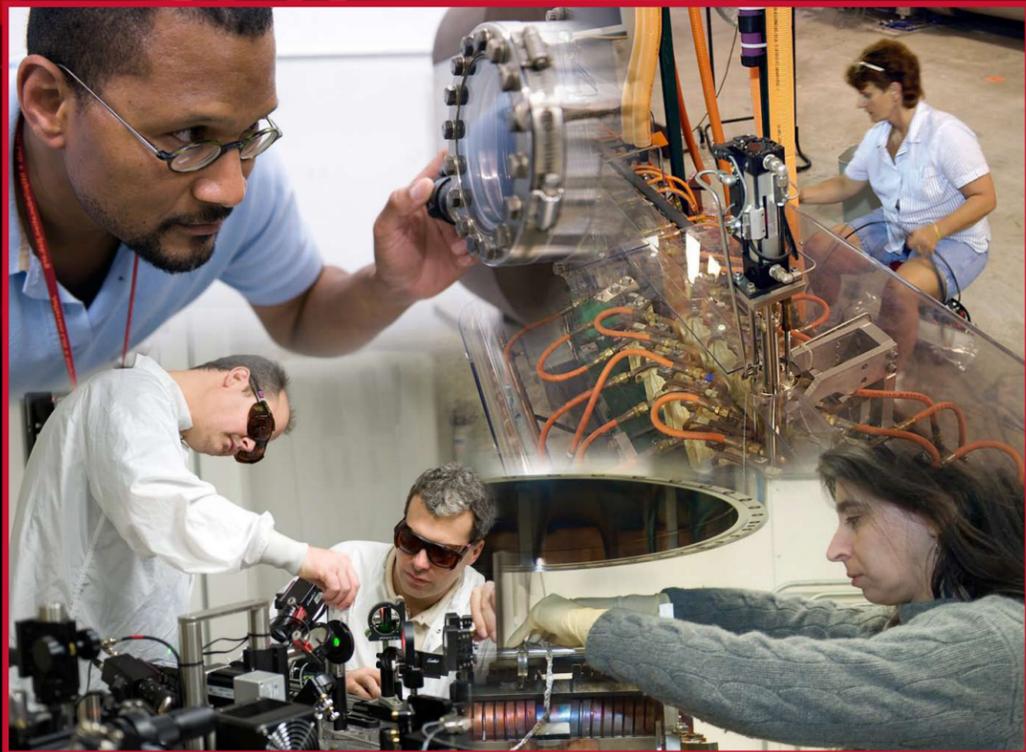


Jefferson Lab

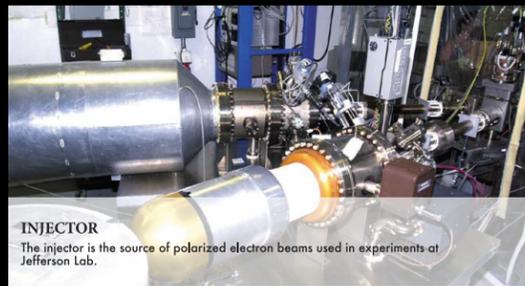
AT A GLANCE



The Thomas Jefferson National Accelerator Facility is a world-leading nuclear physics research facility funded by the U.S. Department of Energy's Office of Science. Jefferson Lab's unique and exciting mission is to expand our knowledge of the universe by studying subatomic particles known as quarks and gluons. Scientists know that these building blocks of matter combine to form the protons and neutrons found in the nucleus of the atom. But they don't fully understand how these particles build our world and universe. To learn more, scientists conduct experiments using Jefferson Lab's Continuous Electron Beam Accelerator Facility. CEBAF acts like a giant microscope, providing an unprecedented view that enables scientists to "see" things a million times smaller than an atom.



Jefferson Lab's accelerator site.



INJECTOR
The injector is the source of polarized electron beams used in experiments at Jefferson Lab.



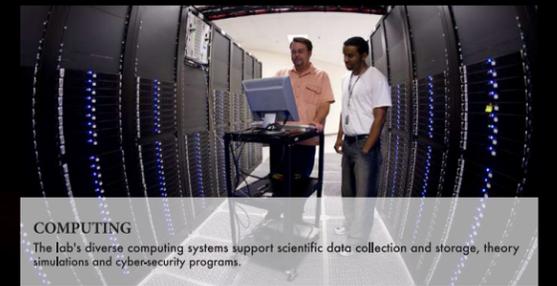
LINEAR ACCELERATOR
Twenty cryomodules line each of CEBAF's two linear accelerators, producing up to 6 GeV electron beams in 5 passes.



RECIRCULATION MAGNETS
Quadrupole and dipole magnets in the tunnel focus and steer the beam as it passes through each arc.



CENTRAL HELIUM LIQUEFIER
The Central Helium Liquefier keeps the accelerator cavities at -456 degrees Fahrenheit.



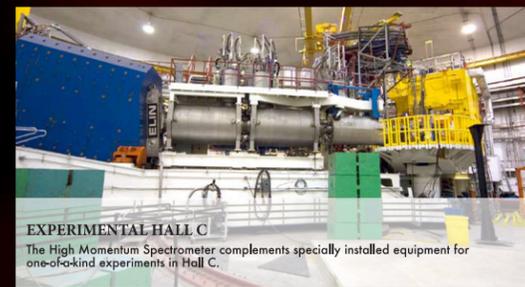
COMPUTING
The lab's diverse computing systems support scientific data collection and storage, theory simulations and cybersecurity programs.



EXPERIMENTAL HALL A
Hall A is configured with two High Resolution Magnetic Spectrometers for studying the inner structure of the nucleus.



EXPERIMENTAL HALL B
The CEBAF Large Acceptance Spectrometer in Hall B completely surrounds the target and can collect two terabytes of data per day.



EXPERIMENTAL HALL C
The High Momentum Spectrometer complements specially installed equipment for one-of-a-kind experiments in Hall C.



FREE-ELECTRON LASER WIGGLER
To generate laser light, an array of magnets converts electron beam power to laser light.

Jefferson Lab

U.S. DEPARTMENT OF **ENERGY**

JSA

Thomas Jefferson National Accelerator Facility is managed by Jefferson Science Associates, LLC for the U.S. Department of Energy's Office of Science