SLAC Mission

SLAC programs explore the ultimate structure and dynamics of matter and the properties of energy, space and time - at the smallest and largest scales, in the fastest processes and at the highest energies - through robust scientific programs, excellent accelerator based user facilities and valuable partnerships.

- Build and operate world leading Photon Science Facilities - LCLS and SSRL
- Perform world leading science at these facilities
- Maintain our position as the premier accelerator laboratory
- Strategic programs in particle physics, particle astrophysics and cosmology
Lab-at-a-Glance

Total FY2010: $351M
DOE Office of Science Funded
• Recovery Act Obligated from DOE: $92.7M

Location: Menlo Park, CA
Type: Multi-program Laboratory

Contract Operator: Stanford University

Human Capital:
• Employees: 1,579 FTE
• 205 Postdocs, Undergrad + Grad Students
• 3,142 Facility Users & Visiting Scientists
# Research Computing for Science

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<th>Core Science</th>
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<th>SLAC Objectives</th>
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<td>• Accelerator Science and Technology</td>
<td>• DAQ/Controls</td>
<td>• Simulations for Accelerators, for detectors</td>
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<td>• Large-Scale User Facilities/Advanced Instrumentation</td>
<td>• Data Management</td>
<td>• Simulations for Materials Science, Catalysis and Cosmology</td>
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<td>• Condensed Matter Physics and Materials Science</td>
<td>• Algorithms</td>
<td>• Tools for Data Management, Algorithms and Analytics including Large Scale Databases</td>
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<td>• Chemical and Molecular Science</td>
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<td>• Particle Astrophysics and Cosmology</td>
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<td>• Simulation</td>
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<td>• Hardware Facilities to support Research computing.</td>
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*SLAC Objectives*:
- Simulations for Accelerators, for detectors
- Simulations for Materials Science, Catalysis and Cosmology
- Tools for Data Management, Algorithms and Analytics including Large Scale Databases
- Working with Partners
The Future!

- New scientific frontiers are being opened
  - Time of extraordinary opportunity
  - Biggest surprises are yet to come!

- Objectives for the future
  1. Premier photon science lab
  2. Premier accelerator laboratory
  3. Strategic particle physics and particle astrophysics programs

- Scientific Computing infrastructure needs to support the users and the science