

**The Terascale** is an energy region named for the tera, or million million, electronvolts of energy needed to access it. Physicists are standing at its threshold, poised to enter this uncharted territory of the subatomic world.

Today, the Fermilab Tevatron particle collider is cracking open the door, offering a first teasing glimpse of the Terascale. Soon, the CERN Large Hadron Collider will fling the door open and begin to explore this exciting new region. Later, the proposed International Linear Collider would zoom in to reveal its most important features.

What do we expect to find at the Terascale? Certainly the Higgs particle—or whatever takes its place. Its discovery would help explain the mass of all elementary particles and the fundamental difference between the electromagnetic force and the weak nuclear force.

But this would be just the beginning. Siblings of the Higgs particle might provide the dark matter that fills the universe. Its cousins might have driven the inflation that powered the big bang. More distant relatives might even be responsible for the ubiquitous dark energy that drives the universe apart.

The Terascale is rich with discovery opportunities, and exploring it is the next big step in understanding the universe in which we live.

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Symmetry  
A joint Fermilab/SLAC publication  
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Batavia Illinois 60510  
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Office of Science  
U.S. Department of Energy