

[2011.00214] Time-dependent escape of cosmic rays from ...

Cosmic rays are extremely high-energy charged particles (usually protons) that move at nearly the speed of light. Some come from the Sun (in the form of solar energetic particles), while others are ejected from supernova explosions and other energetic events in interstellar (and intergalactic) space.

Cosmic Rays - Where Do They Come From?

Ultra-high-energy cosmic rays are the most energetic and rarest of particles in the universe – and also one of the most enigmatic. Benjamin Skuse reveals how cosmic-ray mysteries are continuing to test our understanding of high-energy physics Far, far away, something – somewhere – is creating particles with crazy amounts of energy.

The riddle of ultra-high-energy cosmic rays – Physics World

The Oh-My-God particle was an ultra-high-energy cosmic ray detected on 15 October 1991 by the Fly's Eye camera in Dugway Proving Ground, Utah, U.S. At that time it was the highest-energy cosmic ray that had ever been observed.

Oh-My-God particle - Wikipedia

Mysterious cosmic rays traveling at speeds approaching that of light constantly pelt Earth's upper atmosphere from the depths of space, creating high-energy collisions that dwarf those produced in even the most powerful particle colliders. The atmospheric crashes rain down gigantic showers of secondary particles to the surface of our planet.

High-energy cosmic rays: Solving a century-old mystery ...

Scientists shed new light on mystery origin of ultra-high-energy cosmic ray hotspot. Among many particles arriving from outer space, there are ones with the extremely high energy that travel at ...

High-energy cosmic rays news and latest updates

Cosmic rays have been detected with energies beyond 10²⁰ electronvolts (eV); by comparison, the Large Hadron Collider near Geneva, Switzerland, the world's most powerful particle accelerator,...

High-energy cosmic rays come from outside our Galaxy ...

Scientists speculate that Active Galactic Nuclei may be a source of ultra-high-energy cosmic rays. Active Galactic Nuclei are supermassive black holes in the center of galaxies, which feature gigantic jets of matter that escape falling into the black hole.