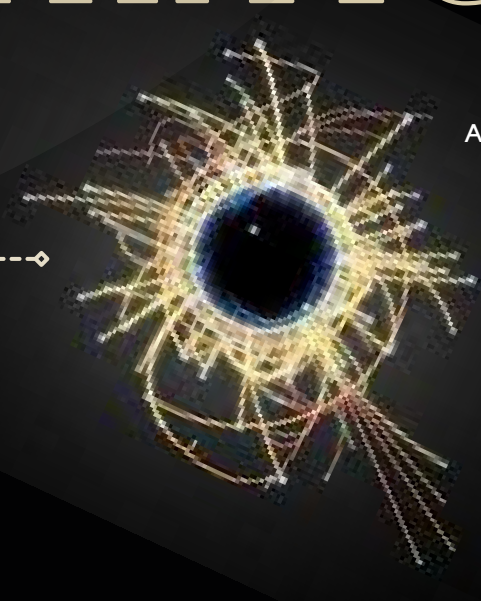
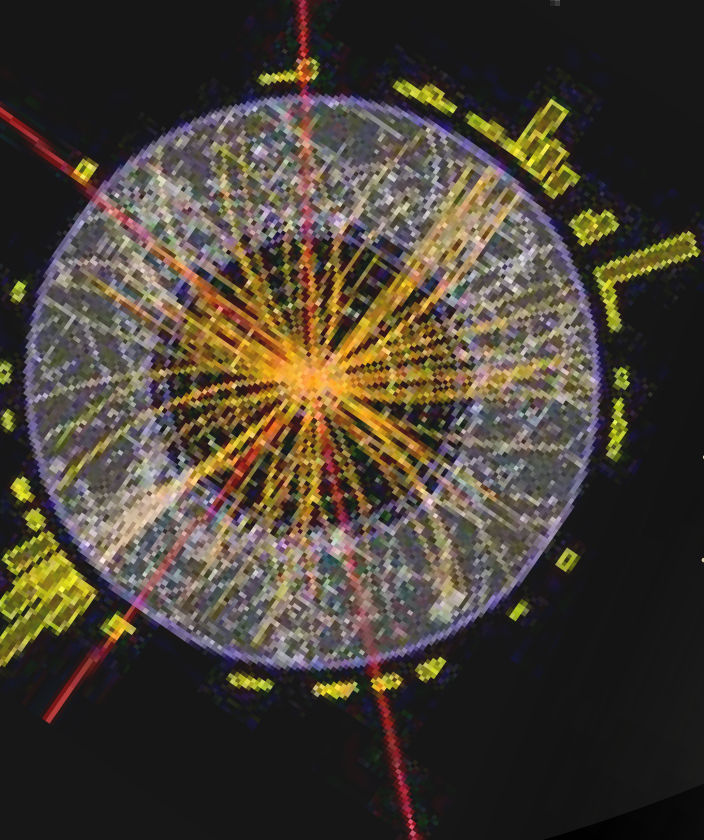


THE GOD PARTICLE

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WHAT IS THE GOD PARTICLE?

A subatomic particle discovered at Cern LHC (Large Hadron Collider) in Switzerland. It was proposed as part of the Standard Model of particle physics, which describes the fundamental particles and forces that make up the universe.

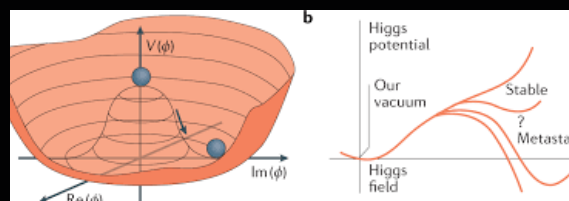


WHO WERE THE ONE RESPONSIBLE?

The six physicists who first proposed the existence of the Higgs boson were Peter Higgs, François Englert, Robert Brout, and etc. The work was based on the principles of quantum field theory, which is a branch of physics that describes the behavior of particles and fields at the smallest scales. By developing mathematical models of particle interactions, they were able to predict the existence of the Higgs boson as part of the mechanism by which particles acquire mass.

WHY IS IT IMPORTANT?

The Higgs boson is particularly important because it is responsible for giving other particles mass. Without the Higgs boson, particles would not have any mass, and the universe as we know it could not exist. The discovery of the Higgs boson confirmed a key part of the Standard Model, and was a major milestone in our understanding of the universe.



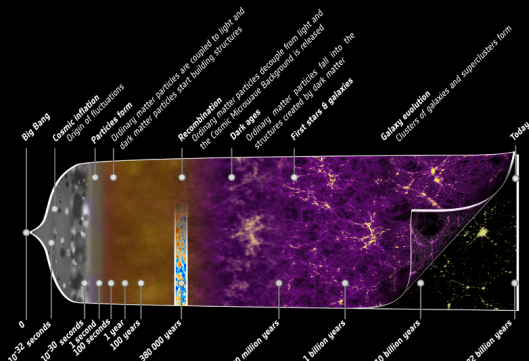
WHAT IS THE STANDARD MODEL?

The Standard Model is a mathematical framework that describes the behavior of subatomic particles and the fundamental forces of the universe. It was developed in the 1960s and 1970s by a number of physicists, including Sheldon Glashow, Abdus Salam, and Steven Weinberg, and it has been very successful in predicting the behavior of particles and interactions between particles. However, the Standard Model was incomplete without a mechanism for giving particles mass, which is why the Higgs field was proposed.



WHAT IS THE HIGGS BOSSON?

According to the Standard Model, the Higgs field is a field that permeates all of space, and it is responsible for giving particles mass. The Higgs boson is an unstable particle and typically decays into other particles within a fraction of a second after it is created. The search for the Higgs boson involved smashing particles together at extremely high energies, which is why the LHC is such a large and complex machine. It is associated with the Higgs field, and its discovery was important because it confirmed the existence of the field and the mechanism by which particles acquire mass. The Higgs boson was one of the last missing pieces of the Standard Model, but there are still many unanswered questions in particle physics, such as the nature of dark matter and dark energy, which scientists continue to investigate.



THE EVOLUTION OF THE UNIVERSE AFTER THE BIG BANG

The Higgs boson helps to explain how particles gained mass in the early universe. As the universe cooled, particles began to interact with the Higgs field, which is associated with the Higgs boson. This interaction gave some particles mass, which allowed them to clump together and form larger structures like atoms and galaxies.

DARK MATTER AND DARK ENERGY

Dark matter does not interact with light or other forms of electromagnetic radiation. The most probable particles that make up dark matter are thought to be weakly interacting massive particles and axions, although their existence has not yet been confirmed by experiments. Dark energy, on the other hand, is a hypothetical form of energy that is thought to be responsible for the accelerating expansion of the universe.

