

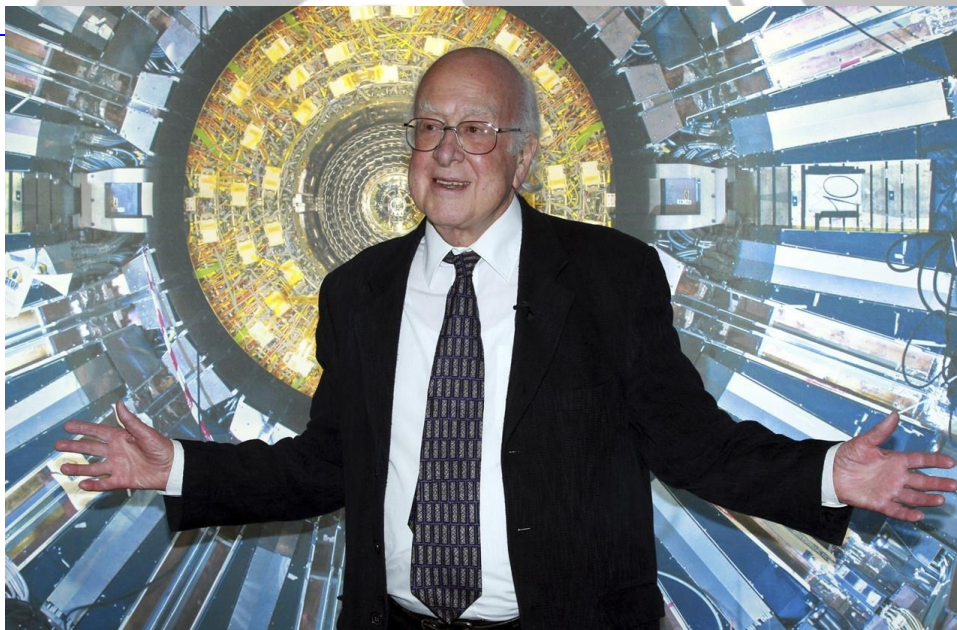


## God Particle or Higgs Boson

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The recent passing of [Nobel laureate](#) physicist **Peter Higgs** has brought attention back to the elusive particle he theorised in the 1960s, known as the '**God particle**' or **Higgs boson**.

- The Higgs boson, an elementary particle akin to **electrons or quarks**, plays a crucial role in **imparting mass** to other fundamental particles.
- Peter Higgs, first proposed the existence of the **Higgs field and the associated Higgs boson in the 1960s**.
  - The Higgs boson is the quantum excitation of the Higgs field, which is believed to permeate the entire universe and interact with other particles, **giving them mass**.
  - The discovery of the Higgs boson completed what is known as the **Standard Model of Particle Physics**, which describes all the fundamental particles (electrons and protons, and the forces, like electromagnetism, gravitation or nuclear forces, that build up the material part of the world).
    - According to the Standard Model of Particle Physics, particles gain their mass by interacting with the Higgs field, which is present throughout the universe.
    - The stronger a particle interacts with the Higgs field, the more it "feels" the field and the more massive it becomes.
  - The Higgs boson was experimentally discovered in **2012 at the Large Hadron Collider (LHC) at CERN** (*Conseil Européen pour la Recherche Nucléaire*), the European Organization for Nuclear Research.



Read more: [Nobel Prize in Physics 2023](#)

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