

Higgs Field

(Explanation of how it give mass to other particles)

Suppose you are in a room having entry door on one side and bar on the opposite side. The room is filled by CERN scientists, who are standing evenly in a particular order. These people symbolises Higgs field.

Suppose a tax collector enters the room. Since no one knows the tax collector he will go to the bar without any interaction with other people. Here tax collector represents photon or massless particle that don't interact with Higgs Field and travels with speed of light.

Now suppose Peter Higgs enters the room. Since everybody knows him, people nearby him will interact with him. First the people who are standing near door. Here Peter Higgs represents mass particles. As he will move towards the bar the scope of people who will interact with him changes. As a result he can never travel at the speed with which tax collector moves i.e. the speed of light. More the interaction with Higgs field more will be its mass.

Now Higgs Boson is just like a clump in the room i.e. rumour crossing the room. Scientifically, Higgs Boson is just an excitation in Higgs Field.

- Amit Srivastava