

About the Higgs Boson

Commentary by Robert Manning

Recently I heard the news that the Higgs particle has been confirmed. It may be too early to comment about the discovery. For every particle there is a field associated with it. This Higgs field is homogenous and distributed evenly throughout the universe. It is what gives everything made of atoms and subatomic particles mass. Another way of putting it, this is what gives matter its energy content and its inertial property. Without the Higgs field, nothing would have mass nor will it have energy. There would be no radiant energy (light) and no time, no gravity, no spatial space for the universe.

The Higgs particle is massive at 120+ Gev/c² compared to an electron which is 0.511 Mev/c², about 235,000 times more massive. When created in the laboratory it has a short life of 1.56 X 10⁻²² seconds; it breaks down into other lower energy W and Z bosons or quark pairs. The discovery of the Higgs boson confirms the prediction of the Standard Model of particle physics. There are forms of matter and energy fields that exist in the universe that the Standard Model doesn't account for, dark energy and dark matter which is much more abundant than the matter and fields that are common to our world. Dark matter and energy are everywhere but rarely interact with our world as if they were on a different set of spatial and time dimensions that superimpose on our world.