



## So Simple & Unnatural: Implications of this 125 GeV Higgs on the Physics of the Universe

The international physics community witnessed in 2012 what is arguably the biggest discovery in the history of high-energy physics: a Higgs boson. Scientists at the CERN Laboratory for Particle Physics presented conclusive evidence for the long-sought fundamental particle that is the first step towards a radically new view of the universe. Individuals working across decades, nations, and scientific disciplines collaborated to invent and build one of the largest machines ever, the Large Hadron Collider (LHC) and its giant detectors, as well as new ways to collect, share, and carefully sift through its mountains of data. Although with the discovery of this Higgs we seem to be on the right track toward understanding the sourcing of mass of the elementary particles (including its own mass), nature persists to puzzle us. I will discuss the cosmological connections and implications given the mass of the first elementary scalar ever observed, the absence so far of new sets of particles previously considered essential for the Higgs and the dark matter conundrum.

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