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The Higgs Boson: Discovery and Properties

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The discovery of the Higgs boson by the ATLAS and CMS collaborations, announced in July 2012, is the culmination of a very long search for this elusive “cornerstone of electroweak symmetry breaking,” or in simpler terms “what gives subatomic particles mass?.” The effort since then has been to characterize the new particle (mass, spin, couplings) and determine whether it is the only such boson. This talk will describe the updated experimental evidence for the Higgs boson, built up from several production mechanisms and decay channels. Recent results have shown that the new particle is indeed consistent with the Standard Model Higgs boson. The presentation will focus on data from the ATLAS experiment.