

Measurements of the properties of the Higgs boson using the ATLAS Detector

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The combination of the measurements of the Higgs boson properties by the ATLAS detector at the LHC will be presented. The results are based on 25 fb⁻¹ of 7 TeV and 8 TeV pp collision data collected in 2011 and 2012. First, the measurements of the spin and parity of the observed boson will be discussed. Secondly, the results for the signal strength of the Higgs boson in different production processes and different decay channels will be presented. Finally, the recent combined LHC (ATLAS+CMS) fits of the couplings to Standard Model particles will be shown, as well as limits on invisible decays. All the results indicate that the observed boson is compatible with a Standard Model CP-even Higgs boson, for all parameterization models considered.

Presentation type

Plenary (25+5 min)

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