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Recent results for the 125 GeV Higgs boson by the ATLAS collaboration

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The 125GeV Higgs boson was discovered by the ATLAS and CMS Collaboration in 2012. With an increasing dataset, the emphasis has now shifted to determining the properties of this particle and testing the consistency of the Standard Model against the data. In this talk, the recent results from Run1 on the 125GeV Higgs boson are summarized. With the re-start of the LHC in 2015, the detailed Higgs boson property measurements will be extended to reach subsequently a higher precision compared to the 7 and 8 TeV analyses. Latest study of the Higgs boson results in Run2 via yy and $ZZ^*(4l)$ channels are presented, and search for the Higgs boson under the assumption of different theory models, such as: Randall–Sundrum (RS) model and two-Higgs-doublet model (2HDM) are also outlined.

Summary

The 125GeV Higgs boson was discovered by the ATLAS and CMS Collaboration in 2012. With an increasing dataset, the emphasis has now shifted to determining the properties of this particle and testing the consistency of the Standard Model against the data. In this talk, the recent results from Run1 on the 125GeV Higgs boson are summarized. With the re-start of the LHC in 2015, the detailed Higgs boson property measurements will be extended to reach subsequently a higher precision compared to the 7 and 8 TeV analyses. Latest study of the Higgs boson results in Run2 via yy and $ZZ^*(4l)$ channels are presented, and search for the Higgs boson under the assumption of different theory models, such as: Randall–Sundrum (RS) model and two-Higgs-doublet model (2HDM) are also outlined.

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