

Search for the Standard Model Higgs boson in ZZ^* to 4μ decay channel with the CMS experiment at $\sqrt{s} = 8$ TeV

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A search for standard model Higgs boson is performed by analyzing the data from proton-proton collision recorded by the CMS experiment at center-of-mass energy of 8 TeV. The data is saved in the form of ROOT files. In this project, the data already have been reconstructed, identified and isolated physics objects such as electrons, muons, photons, etc. Then various properties of these physics objects are studied for optimization of a typical analysis in accord with various decay modes. This project use 'muons' for studying the distribution of important physics parameters, e.g. transverse momentum, geometrical acceptance, relative isolation, invariant mass of four muons.

Summary

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