Measurement of the SM Higgs boson mass in the diphoton and 4l decay channels using the ATLAS detector

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One of the fundamental properties of the Higgs boson, its mass, is measured by way of studying the invariant mass of the 4l and diphoton decay channels with about 36fb-1 of data collected by the ATLAS experiments. Since in this channel the final state can be reconstructed as invariant mass peak with a good experimental resolution this measurement can be done in a model independent way and used as an input to compare other measurement properties with the SM predictions.

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