

Higgs Properties at the LHC

Wednesday, 23 October 2013 15:20 (40 minutes)

After the discovery of a new neutral boson at LHC, the ATLAS and CMS collaboration have almost completed the analysis of the LHC Run 1 data.

The first part of the talk will focus on what we have learnt on the Higgs boson from the current ATLAS and CMS Run 1 results. The properties measured by the two collaborations in terms of mass, Spin/CP and couplings to SM particles will be reviewed.

The second part of the talk will focus on what will be the ultimate precision achievable on Higgs boson properties with the High Luminosity LHC run, which targets an integrated luminosity of 3000 fb⁻¹ at 14 TeV. The projections from ATLAS and CMS collaborations in terms of CP determination and couplings, recently derived for the European Strategy and ECFA meetings, will be discussed.

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