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Recent updates of Higgs properties measurement in the ATLAS and CMS experiments

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The Standard Model of particle physics has proven incredibly successful at describing many features of nature that we observe in our experiments. The Brout-Englert-Higgs mechanism that took place in the early Universe, less than a picosecond after the Big Bang, led to the electromagnetic and the weak interactions becoming distinct in their actions. In the SM, this mechanism introduces a complex scalar field that permeates the entire Universe. Its quantum manifestation, the Higgs Boson, was observed by the ATLAS and CMS experiments at the Large Hadron Collider in 2012. 10 years after the Higgs Boson discovery, its properties have been measured at good precision. Higgs self-coupling strength, which has profound implications on the mechanism of the electroweak phase transition the universe underwent shortly after the Big Bang and on the ultimate fate of the universe itself, has also been determined via single Higgs plus di-Higgs combination. In this talk, I will present recent updates of Higgs properties measurement in the ATLAS and CMS experiments.

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