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New results on the Higgs boson CATERINA VERNIERI, SLAC

The Large Hadron Collider (LHC) is the world's most energetic particle accelerator. During its first run (2009-2012), the ATLAS and CMS experiments discovered the Higgs boson. This discovery marked a historical milestone in the study of fundamental particles and their interactions. Experimental particle physicists at the LHC are now measuring its properties, which are essential to build a deep understanding of the Higgs sector of the Standard Model and to potentially uncover new phenomena. The Higgs boson can be used as a discovery tool assuming new physics will couple preferentially with the electroweak sector. This talk highlights some of the most recent results on the Higgs boson studies with the ATLAS and CMS experiments at the LHC, using proton-proton collision data at centre-of-mass energy of 13 TeV collected during 2015-2018.