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Current Highlights and Future Prospects from CMS

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Since 2010, the Compact Muon Solenoid (CMS) Experiment at the CERN Large Hadron Collider (LHC) has collected an unprecedented amount of proton-proton collision data in the center of mass energies of 7, 8 and 13 TeV. These data are used to conduct hundreds of analyses that test the validity of the standard model and look for hints of beyond the standard model physics. The biggest highlight so far has been the discovery of the Higgs boson. The quest continues via a large diversity of measurements and searches aiming to explore all theoretical possibilities. Moreover, the upcoming technical upgrades for the high-luminosity LHC (HL-LHC) and the Phase2 detectors promise a further wealth of physics prospects. This talk will present various recent physics results obtained with the CMS Run2 data and overview prospects for the future HL-LHC program.

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