Highlights from Standard Model physics at the LHC in the precision era

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With the first two runs of the Large Hadron Collider (LHC) successfully completed, and Run 3 currently underway at an unprecedented center-of-mass energy of 13.6 TeV, the experiments at the LHC continue to collect a wealth of data for physics analysis. Following the discovery of the final component of the Standard Model (SM)—the Higgs boson—in 2012, the LHC physics program has entered an era of precision, aiming to measure the fundamental parameters of the SM and the properties of its constituent particles to the most precise extent possible. The quest for precision is complemented by a vast array of searches for phenomena beyond the SM (BSM), which directly benefit from the improved knowledge of the SM. In this contribution, I will present a selection of recent results from the ATLAS and CMS collaborations, focusing on SM electroweak and QCD physics, and touching upon searches for BSM phenomena.

Presenter: SAVOIU, Daniel (UNI/EXP (Uni Hamburg, Institut fur Experimentalphysik)) **Session Classification:** Invited Overview Talks / Hauptvorträge