

Plenary Talk

PV XVIII Fri 9:45 HSZ/AUDI

The LHC legacy and prospects — ●MARKUS KLUTE — KIT, Karlsruhe, Germany

The Large Hadron Collider (LHC) at CERN has had two successful and highly productive runs (2009-2013 and 2015-2018), colliding protons and heavy ions with center-of-mass energies of up to 13 TeV and collecting an unprecedented amount of data. Its highlight, the Higgs

Boson discovery in 2012, completed the Standard Model of fundamental particle interactions. The particle physics world has changed dramatically in the last decade. While the impact of the collected data has been tremendous, many open questions in the world of elementary particle physics remain. I will review the main conclusions from the LHC to date and present the prospects of the LHC program and beyond.