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“Higgs Physics at the Large Hadron Collider”

After the discovery of a new scalar particle at CERN its properties have been investigated and strongly suggest it to be the Higgs boson, i.e. the particle related to the Higgs mechanism. So far no new particles have been discovered which could help to clarify the question if it is the Higgs boson of the Standard Model or of extensions beyond the Standard Model, which could be either weakly or strongly interacting. In my talk I will present strategies on how the Higgs sector can be tested at the LHC. Interpretations within various beyond the Standard Model scenarios will be investigated. Furthermore, typical new physics scenarios shall be reviewed that lead to observable modifications of the Higgs interactions with the final aim to pin down the nature of electroweak symmetry breaking and the underlying theory.