Bernhard Mistlberger – HEP Seminar 10/29/2019 CERN

Title: "Predicting cross sections for Higgs Boson physics at N3LO in QCD"

Abstract:

The Large Hadron Collider provides an unique opportunity study the fundamental laws of nature at the high energy frontier. The success of this exploration crucially relies on our capability to describe the scattering processes of fundamental particles at high level of precision. In this talk, I will present my recent theoretical advances and developments of computational techniques in Quantum Field Theory. I will discuss the beneficial impact of this developments on our current understanding of the Higgs boson and on the LHC phenomenology program in general.