

Rhorry Gauld – HEP Seminar talk – January 11, 2022
Uni-Bonn

Title: The role heavy-flavour quarks at the LHC: from scattering rates to identified jets

Abstract: Understanding the role of heavy-flavour quarks in high-energy scattering processes is essential for performing precision studies of SM processes as well as (flavour-dependent) direct new physics searches at the LHC. I will talk about two recent advances on this topic: The first concerns conceptual developments in our ability to compute theory predictions for differential collider observables. The second will focus on the theoretical progress made in describing scattering processes which include a (heavy-)flavoured jet. For the latter part I will focus on the $Z+b$ -jet process, and discuss the implications for flavoured-jet measurements at the LHC.