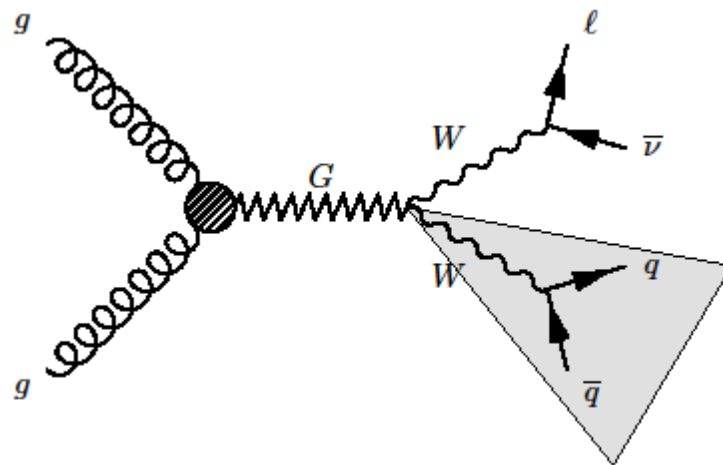


Search for diboson resonances at CMS.

Clemens Lange (CERN)

Tuesday, 31 May 2016, 16:45 h, DESY Auditorium



Diboson resonances are key players in many attractive extensions of the standard model (SM) which might cure some of its well-known shortcomings. The analysis of Run-1 and early Run-2 LHC data received significant attention as they indicated possible deviations from the SM expectation. In this presentation I will focus on the search for resonances decaying into a pair of massive bosons (W, Z and Higgs). These searches are particularly challenging for high resonance masses, since the daughter bosons are highly energetic, and their decay products difficult to separate. This requires advanced techniques such as jet substructure identification, novel b-tagging algorithms, and special tau reconstruction and lepton isolation approaches, which I will detail in my talk.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**