Contribution ID: **25** Type: **not specified**

Drell-Yan production of multi-Z's at the LHC

Friday, 15 January 2016 11:10 (25 minutes)

The Drell-Yan di-lepton production at hadron colliders is by far the preferred channel to search for new heavy spin-1 particles. Traditionally, such searches have exploited the Narrow Width Approximation (NWA) for the signal, thereby neglecting the effect of the interference between the additional Z'-bosons and the Standard Model Z and γ. Recently, it has been established that both finite width and interference effects can be taken into account in experimental searches while still retaining the model independent approach ensured by the NWA. This assessment has been made for the case of popular single-Z' models currently probed at the Large Hadron Collider (LHC). In this talk I review the scope of the CERN machine in relation to the above respects for the case of some benchmark multi-Z' models. In particular, we consider Non-Universal Extra Dimensional (NUED) scenarios and the 4-Dimensional Composite Higgs Model (4DCHM), both predicting a multi-Z' peaking structure.

Primary author: Mr FIASCHI, Juri (University of Southampton)

Presenter: Mr FIASCHI, Juri (University of Southampton)

Session Classification: Parallel session