# Phenomenology of G(221) models at the LHC

We present the phenomenology of a class of models with an extended electroweak gauge group of the form SU(2)xSU(2)xU(1), often denoted as G(221) models. This includes Grand Unified Theory motivated models such as "left-right" as well as "non-universal" models. Given the most recent bounds on the parameter space derived from the low-energy precision measurements, we show expected signals for various observables in channels which are affected by the existence of additional charged and neutral (W' and Z') gauge bosons. In the first part of our analysis, we describe general features of the signals for G(221) models at the LHC and how they compare to the other extensions of the Standard Model containing W'- and Z'-bosons. In the second part, we show how to distinguish between models within the G(221) class of SM extensions.

**Auteur principal:**   Dr JEZO, tomas (LPSC)

**Orateur:**   Dr JEZO, tomas (LPSC)

**Classification de thématique:**   Higgs and New Physics