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Search for Diboson Resonances with the CMS experiment

Tuesday, July 31, 2018 10:00 AM (15 minutes)

The São Paulo Research and Analysis Center (SPRACE) is actively working on the analyses of the data collected by CMS. One of our main interest is the search for physics beyond standard model. In this talk we will show the efforts of the SPRACE group on the search for new diboson resonances at the CMS experiment.

With the discovery of the H boson by ATLAS and CMS collaborations in 2012, science has started to shed light on the breaking of the electroweak symmetry. If the EWSB has a more complex cause than the Brout-Englert-Higgs mechanism present in the standard model, it stands to reason that new phenomena would appear in the production of weak bosons. A particularly enticing scenario is the possibility of new resonances decaying to pairs of W, Z and H bosons. We will present our efforts on the search for these diboson resonances, including results from our latest paper with 2016 pp collisions data.

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