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Type: **Afternoon Session**

Displaced Heavy Neutrinos at the LHC and Beyond

Tuesday, April 23, 2019 6:10 PM (15 minutes)

We investigate the pair production of right-handed neutrinos from the decay of the additional neutral gauge boson Z' at a gauged $B - L$ model. Analysing such signal can be recasted from dark photon searches with a corresponding factor of its coupling g' , this gives a upper bound for g' to be 10^{-4} for $m_{Z'}$ under 10 GeV and 10^{-3} for $m_{Z'}$ beyond 10 GeV. As the heavy neutrinos can be longlived as distinctive displaced vertices signatures via seesaw mechanism, an simulation based on Monte Carlo event generator is performed, which shows a sensitivities for $V_{\mu N} < 10^{-5}$ with 300 fb^{-1} assuming $g' = 10^{-3}$ and $M_N = 0.3 \cdot m_{Z'}$ at MAPP and LHCb detector.

Authors: Mr LIU, Wei (University College London); Dr DEPPISCH, Frank (University College London); Dr KULKARNI, Suchita (The Institute of High Energy Physics)

Presenter: Mr LIU, Wei (University College London)

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