## Phenomenology 2018 Symposium



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## **Lightening Top Partner at the LHC**

Monday 7 May 2018 15:45 (15 minutes)

We consider a TeV vector like Top Partner that is a color triplet and electroweak singlet. We study the pair production of the Top Partner at the LHC and its radiative decay modes into SM top and gloun or SM top and photon. The interaction Lagrangian of the Top Partner with SM top is introduce as an effective dimension 5 operator. We focus on the semileptonic final states and use Boosted Tagging Technique to identify heavy objects and reduce the background. We then study the signal sensitivity of the LHC by presenting luminosity curves and branching ratio as a function of the top partner mass.

## Summary

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Session Classification: Top