



Contribution ID: 264

Type: **Oral presentation**

## **Photon fusion production mechanism of magnetic monopoles: a study with MadGraph**

*Thursday 12 July 2018 15:00 (30 minutes)*

The Dirac magnetic monopoles, if exist, can be probed in the collider experiments. Earlier only the Drell-Yan production mechanism of magnetic monopoles was used to look for these particles. But the photon-fusion production mechanism of magnetic monopoles is the dominant production mechanism in terms of cross-section at the LHC energy. We will discuss the photon-fusion production of spins 0,  $\frac{1}{2}$  and 1 monopoles using MadGraph event generator. We will also show the kinematic distributions of magnetic monopoles having those three spins.

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**Session Classification:** Mini-workshop on Highly Ionising Avatars of New Physics