PHENOEXP 2018: LHC Physics and beyond



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Search for non-standard SUSY Final States at the LHC

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Several years of LHC data taking has left us empty handed when it comes to SUSY search results. That means one of three things:

- 1) Nature is not supersymmetric
- 2) The cross-sections/masses involved are still outside the reach of the LHC.
- 3) Our search strategies aren't sensitive to the SUSY final states.

While the first two points will take a long time to prove, work is urgently needed to check the 3rd option. In this presentation we discuss the possibility of sensitivity gaps in our LHC analyses that might lead to fact that we have missed SUSY in our existing data set.

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