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Beyond Simplified Models: Constraining Supersymmetry on Triangles

Tuesday, 6 May 2014 18:15 (15 minutes)

I will discuss an approach for the presentation of experimental constraints on supersymmetric scenarios. It is a triangle based visualization that extends the status quo wherein LHC results are reported in terms of simplified models under the assumption of 100% branching ratios. I will show that the (re)interpretation of LHC data on triangles allows the extraction of accurate exclusion limits for a multitude of more realistic models with arbitrary branching ratios. I will demonstrate the utility of this approach using the example of gluino production and decay in several common supersymmetric scenarios.

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