Status of UMN Efforts

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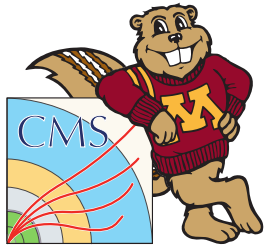

Overview

Objectives

- Discussion with Jennet, Jim, we look to focus on muon collider scenarios.
- Identify, "interesting" points from Jennet's scans and simulate small set of events under the different collider scenarios.

Setup and Offerings

- At UMN, we have setup out own standalone PYTHIA and DELPHES
- Successfully workflow chain *SLHA* $\rightarrow$ PYTHIA $\rightarrow$ *HepMC* $\rightarrow$ DELPHES $\rightarrow$ *ROOT* producing ROOT files with events in HepMC event format.
- Have submission framework to run over SLHAs with any collider scenario and get total SUSY cross section, expected events—can be expanded to included simulation of events.

Going Forward

- For given muon collider scenario, find pMSSM scan points that would yield meaningful number of SUSY events
  - Can also look at relative frequency of production of SUSY particle type
- Simulate events in DELPHES for these scan points and start looking at event variables, etc