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GEFÖRDERT VOM
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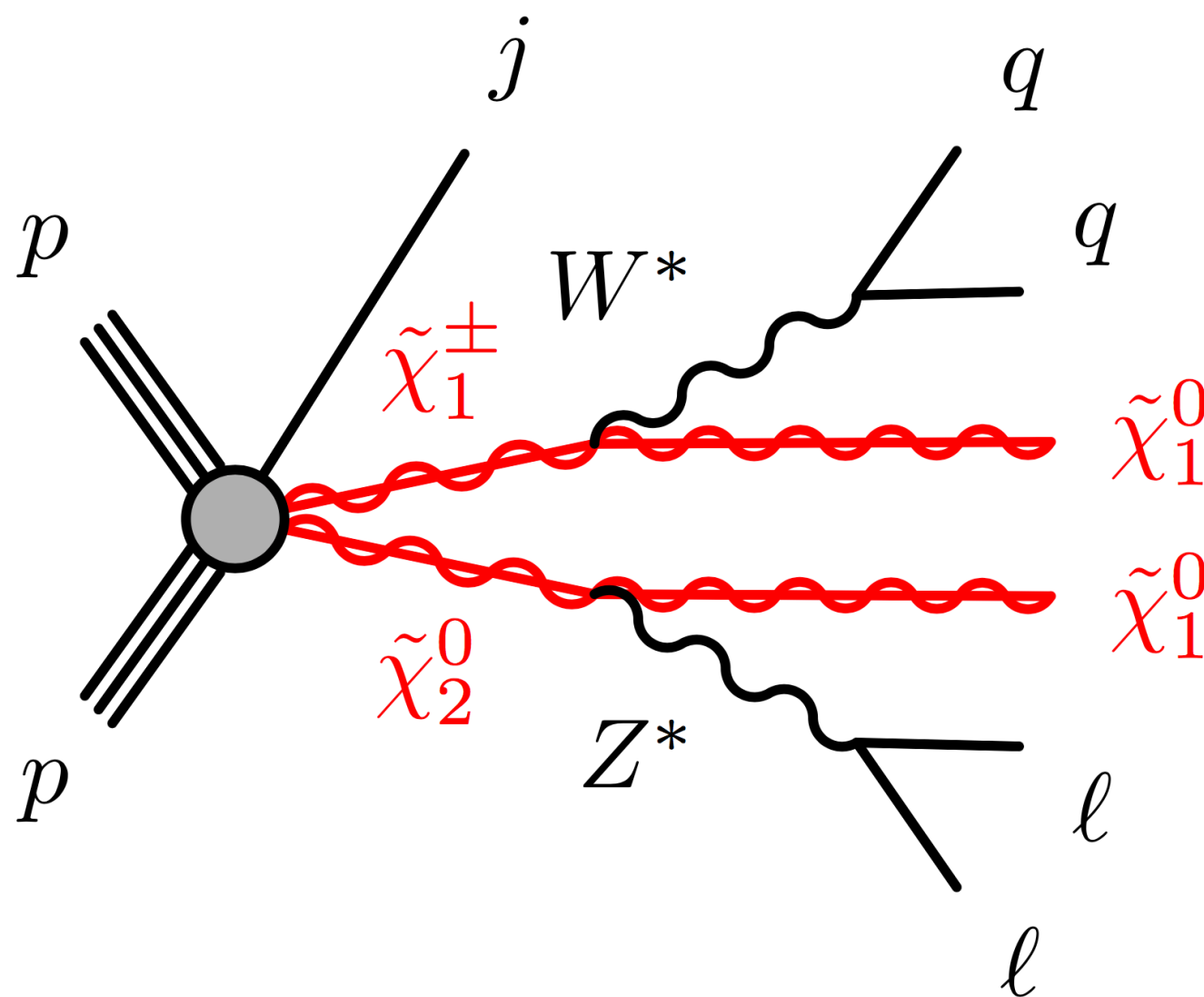
Search for compressed mass Higgsino production at the CMS experiment in events with a reconstructed lepton and an isolated track

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Peter Schleper, Gudrid Moortgat-Pick, **Yuval Nissan**

16th April, 2020

Decay of an Electroweakino Pair

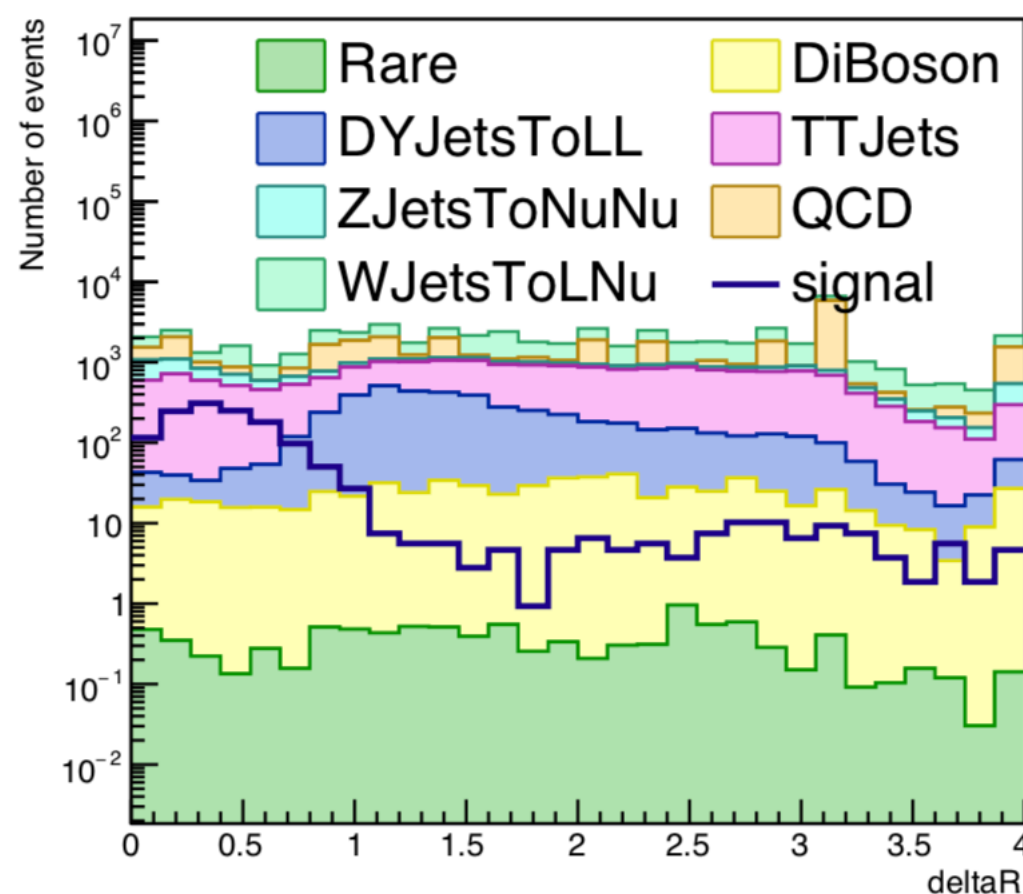
- Typical Process:



- Signatures that include moderate missing transverse momentum.
- Most momentum/energy is carried away by neutralinos.
- Very soft same-flavour leptons.
- Initial-state-radiation (ISR) jet increases MET, thus increases sensitivity.

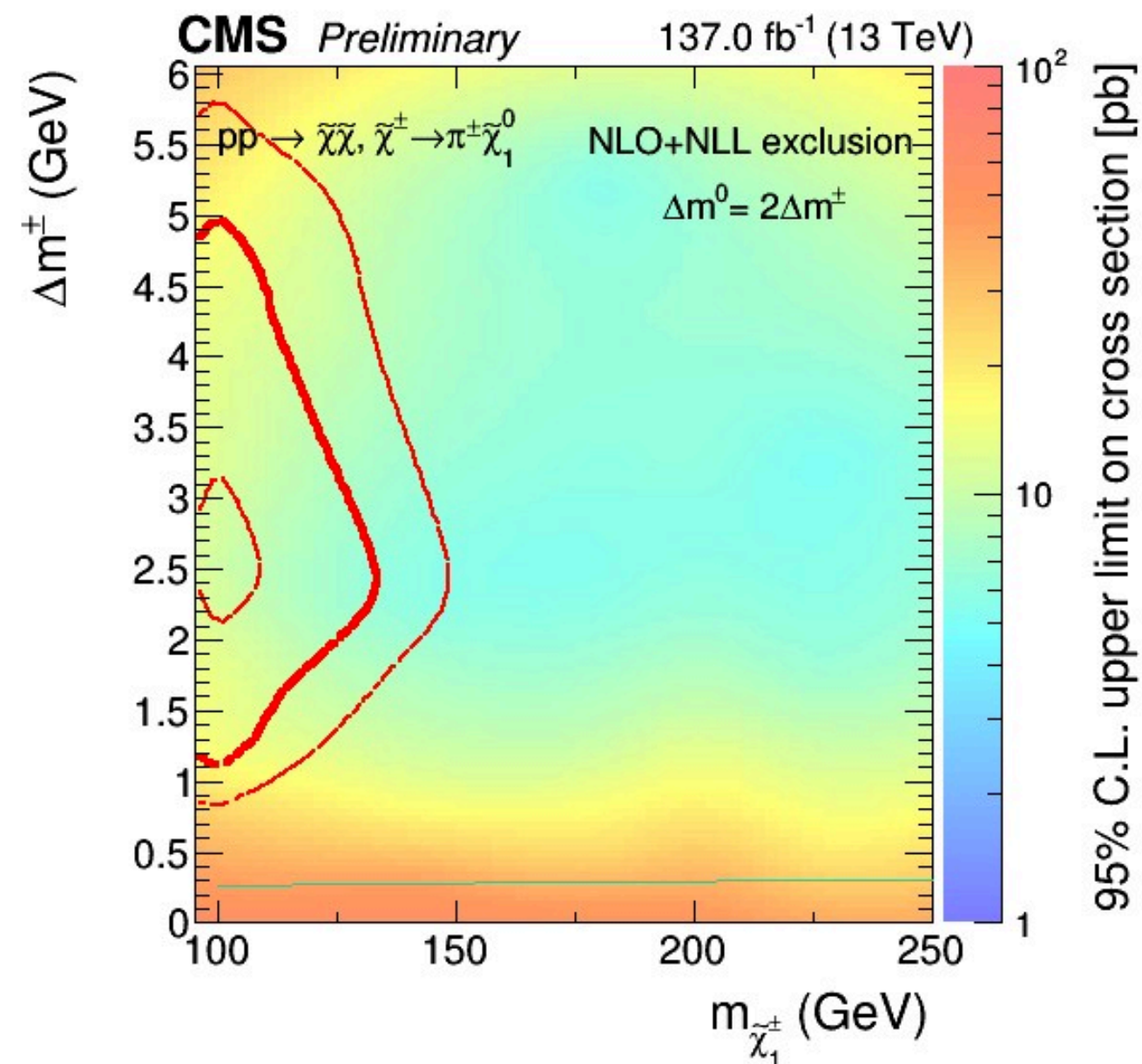
Update on Leptons

- We have looked at an orthogonal two-leptons region to the previous study. An update from the SOS group in the SUSY limit say they will use Lepton $P_t > 3.5$. Also they have a $\Delta R > 0.3$ requirement - so we will construct an orthogonal region to them.



$dm = 3$

Exclusive Track



Two reconstructed leptons

