

Proposal

Define set of reference topologies. Start with reference topologies common to ATLAS and CMS studies.

The few month goal is to see reference topology sensitivity in the public domain for further analysis and to take next steps.

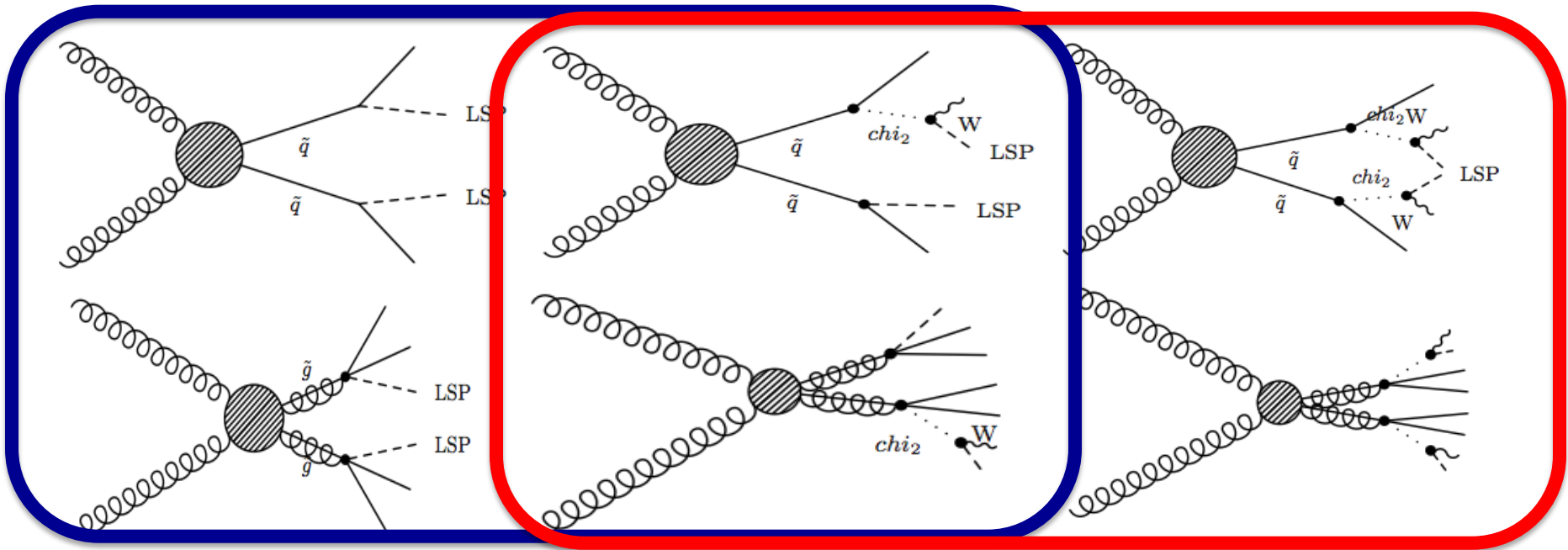
(e.g. include in broader fitting effort)

Reference Topologies for X+MET Searches

Topologies taken from those common to ATLAS & CMS talks at this workshop

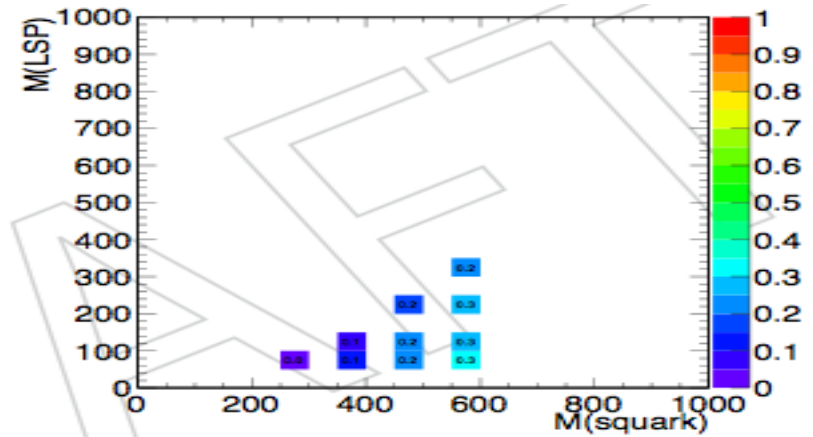
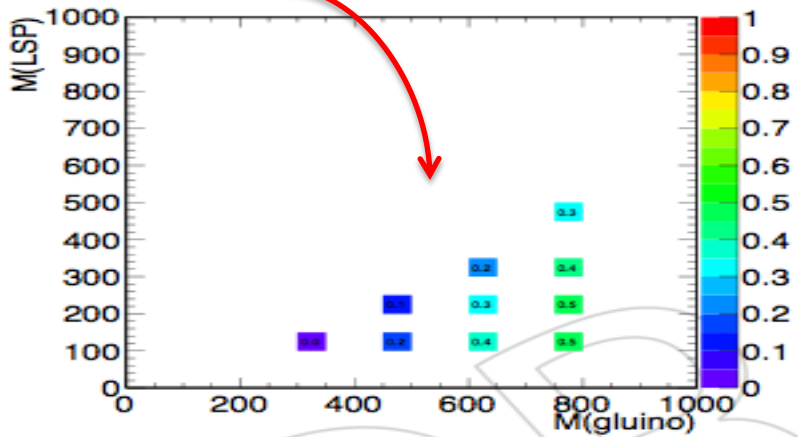
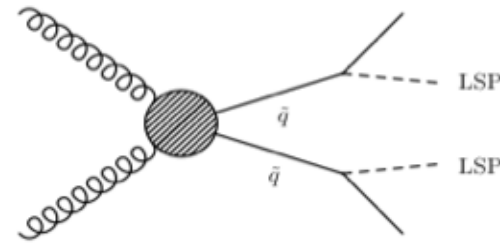
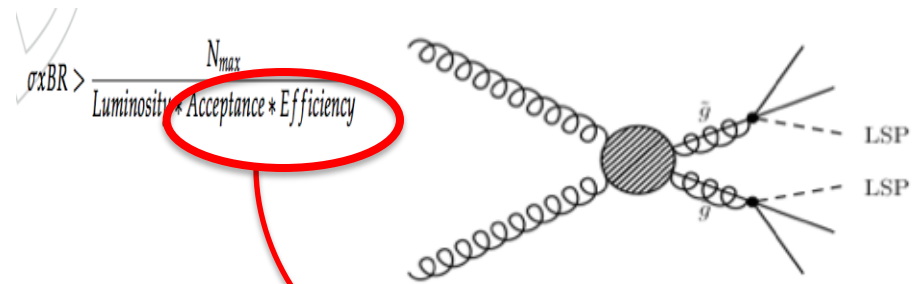
Plots taken from workshop talks

Jets+ MET +0/1 lepton simplified models



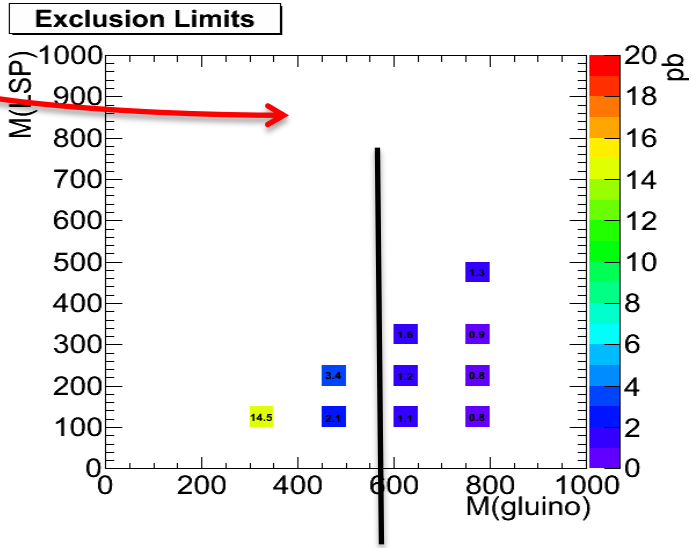
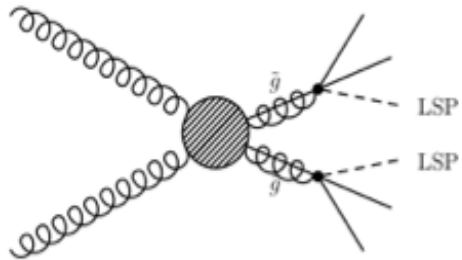
Starting point for the *fully hadronic* and *1-lepton* searches

Acceptance x Efficiency



Max cross-section plot

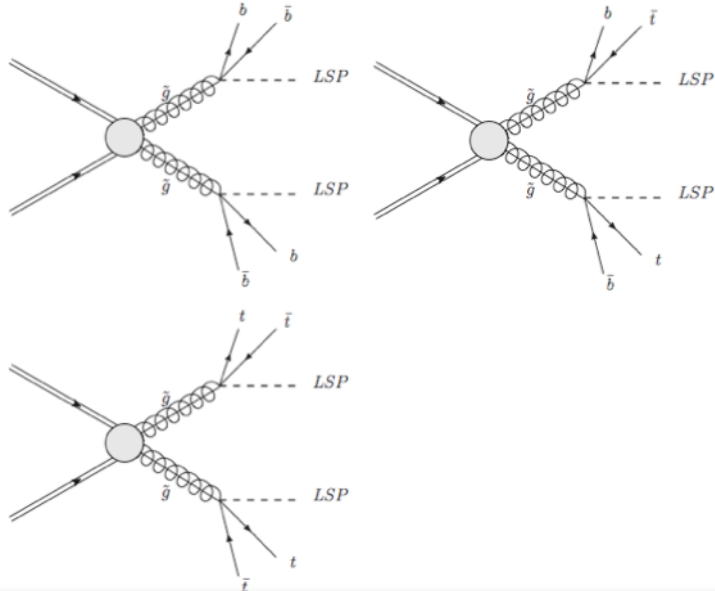
$$\sigma_{BR} \propto \frac{N_{max}}{\text{Luminosity} * \text{Acceptance} * \text{Efficiency}}$$



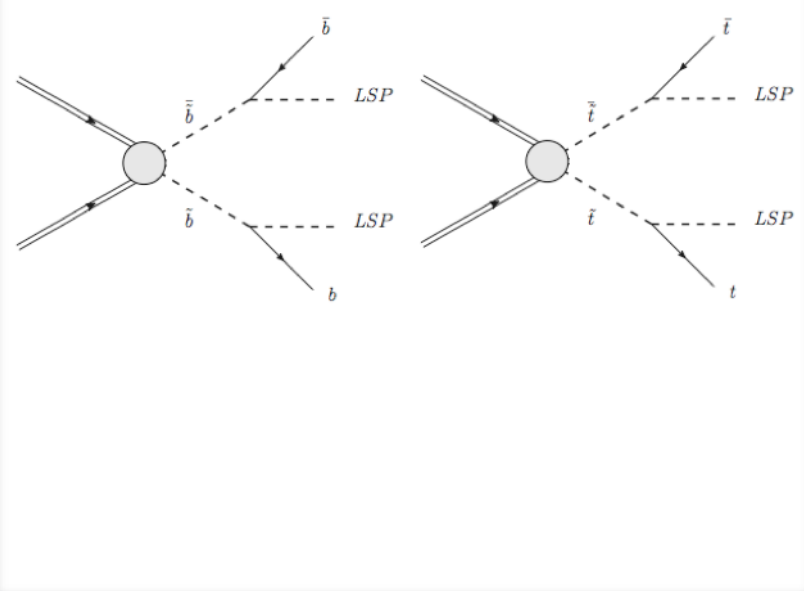
below above
the "reference" GG
production

Heavy-Flavor

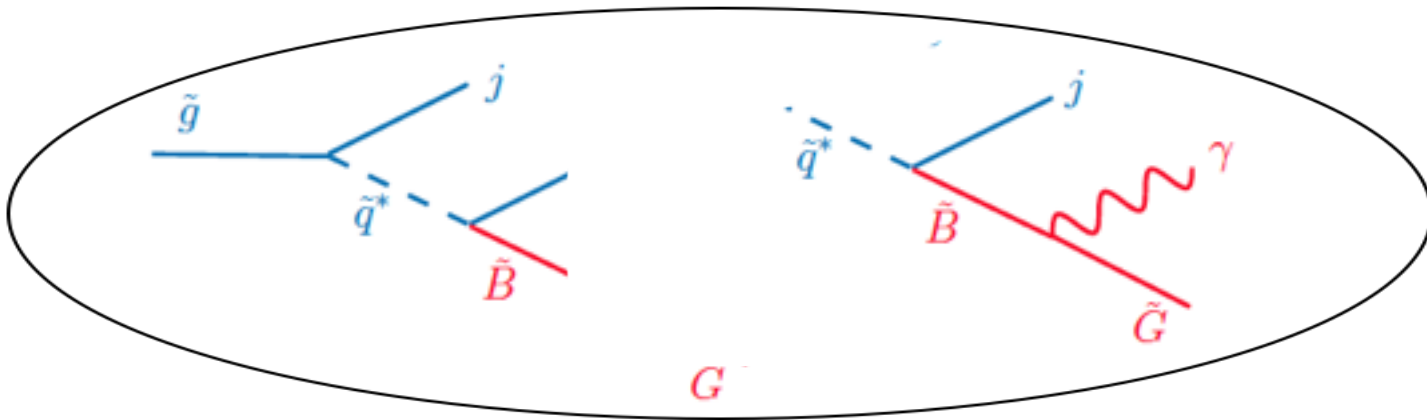
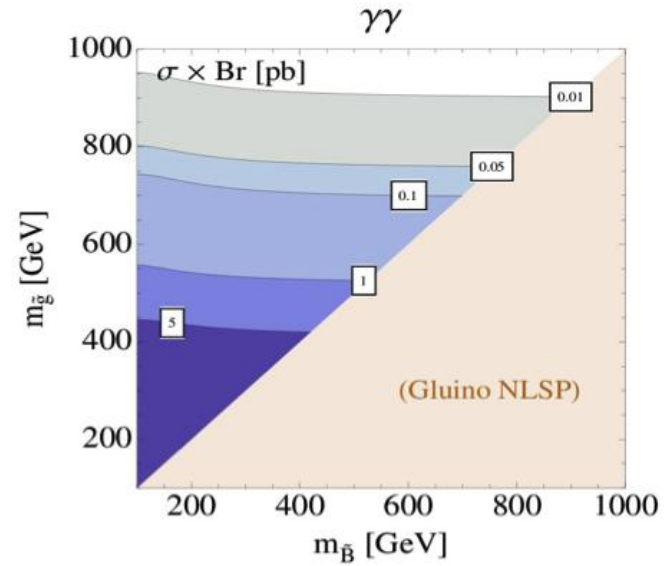
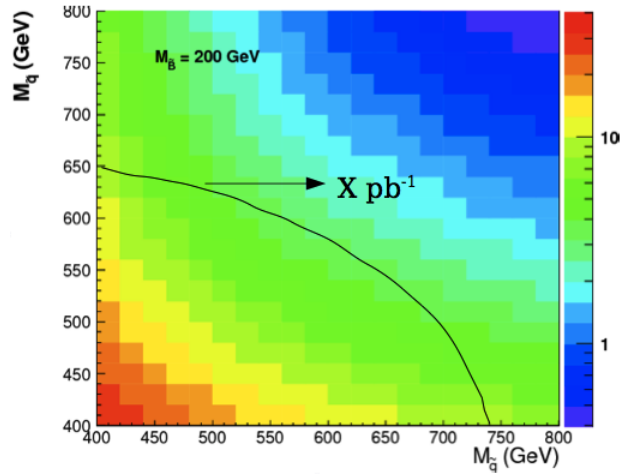
“4b+MET signature”



“2b+MET signature”

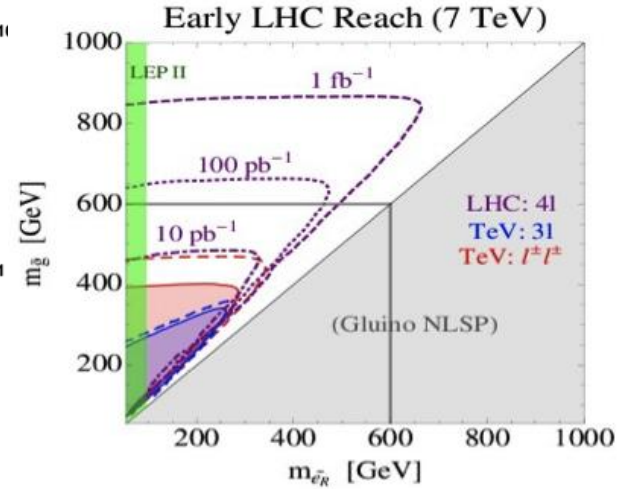
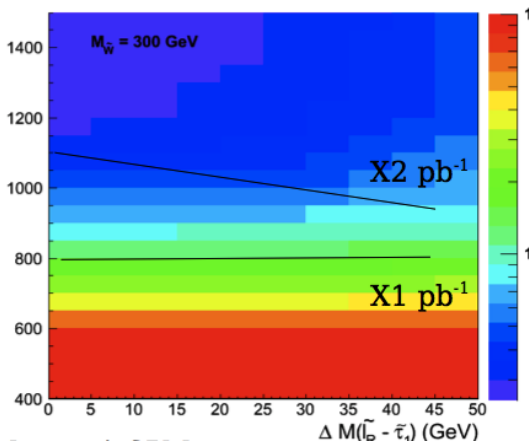
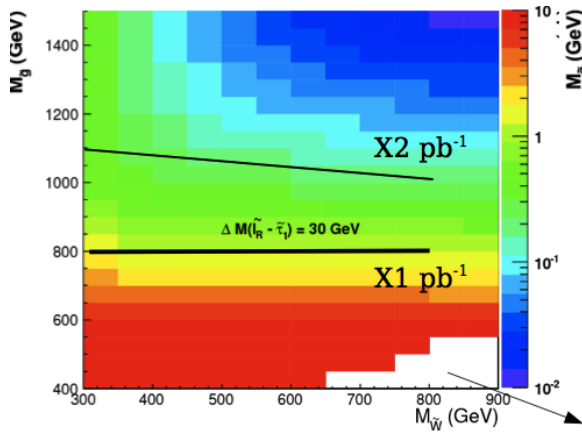


Di-Photon

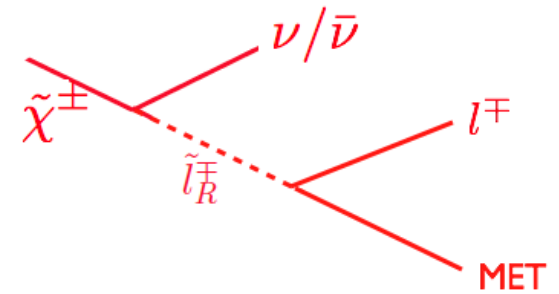
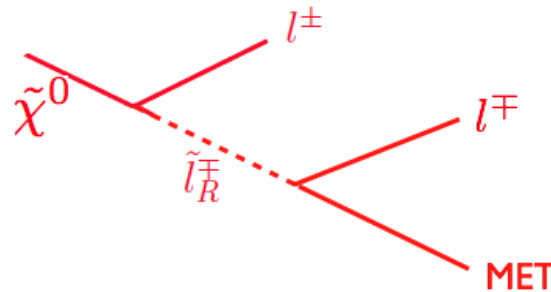
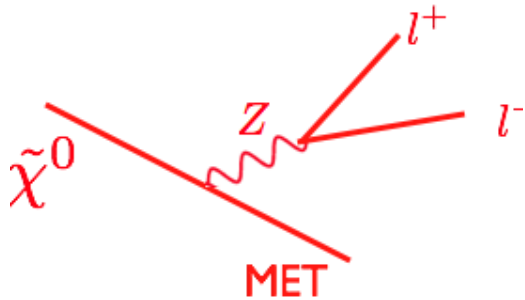


Already being considered in ATLAS and CMS: good starting point

2 or more leptons



Production as in earlier examples



[possibly also decays to stau NLSPs]

(includes cases MET=neutralino or gravitino)