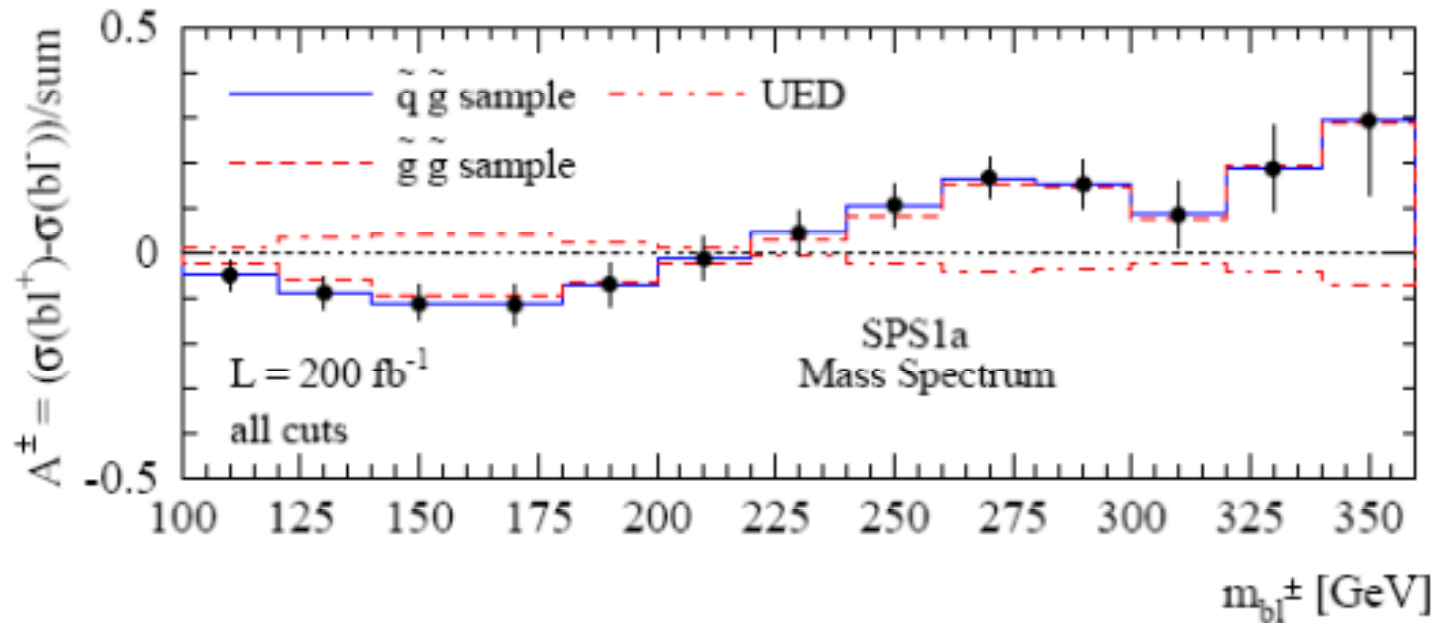


# After realistic cuts, SPS1A, 200 fb<sup>-1</sup>

Asymmetry  
still  
observable



Acceptance cuts:

$$\begin{aligned}
 p_{T,b} &> 50 \text{ GeV} & p_{T,\ell} &> 10 \text{ GeV} \\
 p_{T,j}^{\min} &> 40 \text{ GeV} & p_{T,j}^{\max} &> 150 \text{ GeV} \\
 |\eta_i| &< 2.4 & \Delta R_{ik} &> 0.4 \quad (i, k = b, j, \ell)
 \end{aligned}$$

Cuts to reject Standard Model

$$m_{\ell\ell} < 80 \text{ GeV} \quad M_{\text{eff}} > 450 \text{ GeV} \quad m_{jj} < 300 \text{ GeV}$$

For a quantitative study we choose the (collider friendly) parameter point SPS1a. The masses in the gluino decay cascade are  $m_{\tilde{g}} = 608 \text{ GeV}$ ,  $m_{\tilde{b}_1} = 517 \text{ GeV}$ ,  $m_{\tilde{b}_2} = 547 \text{ GeV}$ ,  $m_{\tilde{\chi}_2^0} = 181 \text{ GeV}$ ,  $m_{\tilde{\ell}_1} = 145 \text{ GeV}$ ,  $m_{\tilde{\ell}_2} = 202 \text{ GeV}$ ,  $m_{\tilde{\tau}_1} = 136 \text{ GeV}$ ,  $m_{\tilde{\tau}_2} = 208 \text{ GeV}$ , and  $m_{\tilde{\chi}_1^0} = 97 \text{ GeV}$ . The NLO production cross sections are 7.96 pb for  $\tilde{g}\tilde{g}$ , 8.02 pb for  $\tilde{q}\tilde{q}^*$ , 26.6 pb for  $\tilde{q}\tilde{g}$ , and 7.51 pb for  $\tilde{q}\tilde{q}$ . For the SPS1a parameter choice the lighter of the