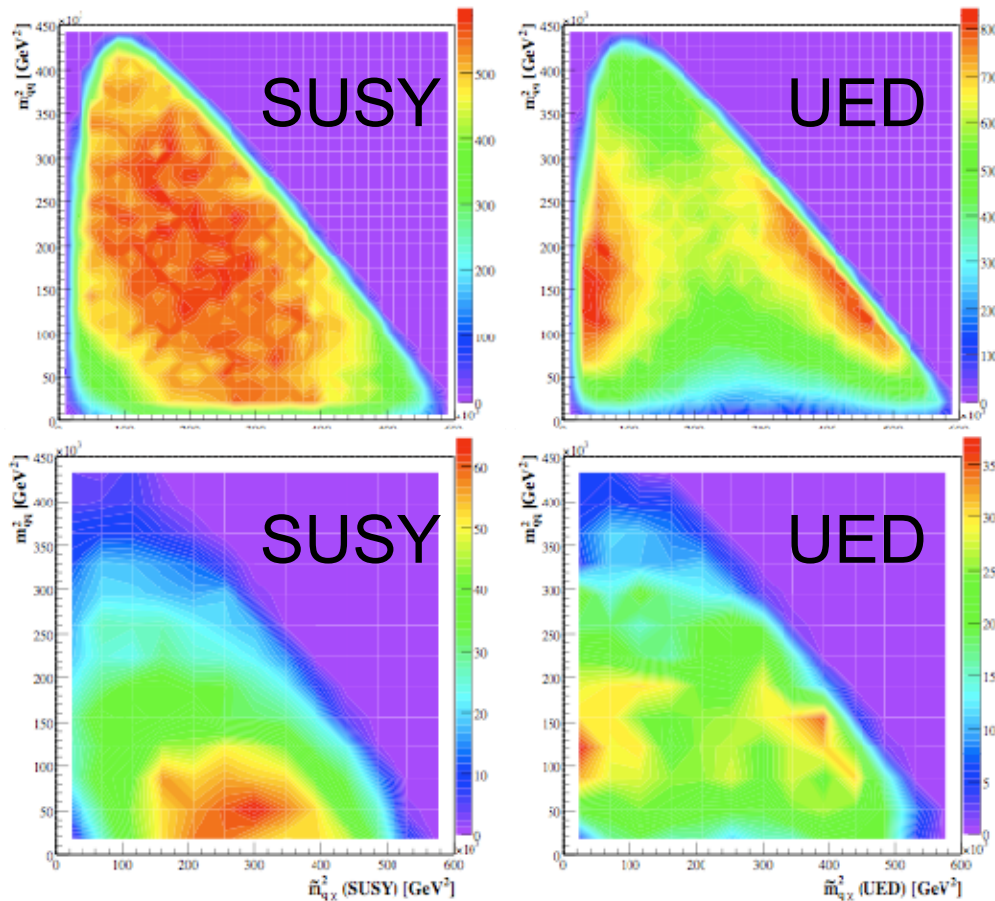


M_{T2}-assisted (MAOS) spin determination

$$pp \rightarrow Y(1) + \bar{Y}(2) \rightarrow V(p_-)\chi(k_1) + V(p_2)\chi(k_2), \quad Y \rightarrow q(p_q)\bar{q}(p_{\bar{q}})\chi(k).$$

$$M_{T2}(p_i, m_\chi) \equiv \min_{\mathbf{k}_{1T} + \mathbf{k}_{2T} = \mathbf{p}_{T,i}} [\max\{M_T^{(1)}, M_T^{(2)}\}] \rightarrow \text{assign 4-momenta}$$



$$m_{\chi,Y} = m_{\chi,Y}^{\text{true}} \\ \mathcal{L} = \infty$$

$$m_\chi = 0, m_Y = M_{T2}^{\text{max}}(m_\chi = 0) \\ \mathcal{L} = 300 \text{ fb}^{-1}$$

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