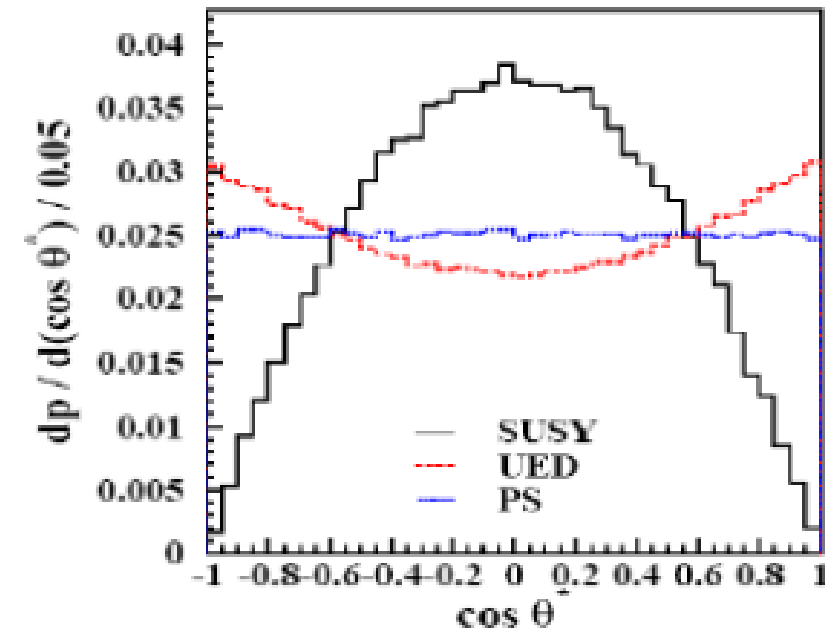


Look at slepton production angle in c.o.m.

- θ^* = angle between incoming quark and slepton



$$\left(\frac{d\sigma}{d \cos \theta^*} \right)_{\text{SUSY} = \text{LHC point 5}} \propto 1 - \cos^2 \theta^*$$

$$\left(\frac{d\sigma}{d \cos \theta^*} \right)_{\text{PS}} \propto \text{constant}$$

$$\left(\frac{d\sigma}{d \cos \theta^*} \right)_{\text{UED}} \propto 1 + \left(\frac{E_{\ell_1}^2 - M_{\ell_1}^2}{E_{\ell_1}^2 + M_{\ell_1}^2} \right) \cos^2 \theta^*$$

Sensitive to spin, but can we measure θ^* ?

Define: $\cos \theta_{ll}^* \equiv \cos \left(2 \tan^{-1} \exp(\Delta\eta_{\ell^+ \ell^-} / 2) \right) = \tanh(\Delta\eta_{\ell^+ \ell^-} / 2)$