

3)

$$D_x^{i*} \ll \frac{\theta_3^{\downarrow}}{\sigma_E}$$

Assuming the same conditions and  $\sigma_E = 1.1 \times 10^{-4}$

$$D_x^{i*} \ll 0.13$$

4)

$$M_{x12} \approx M_{y12}$$

5) The experiment could be done in special dedicated runs at the start of the LHC with reduced number of bunches and without crossing angle