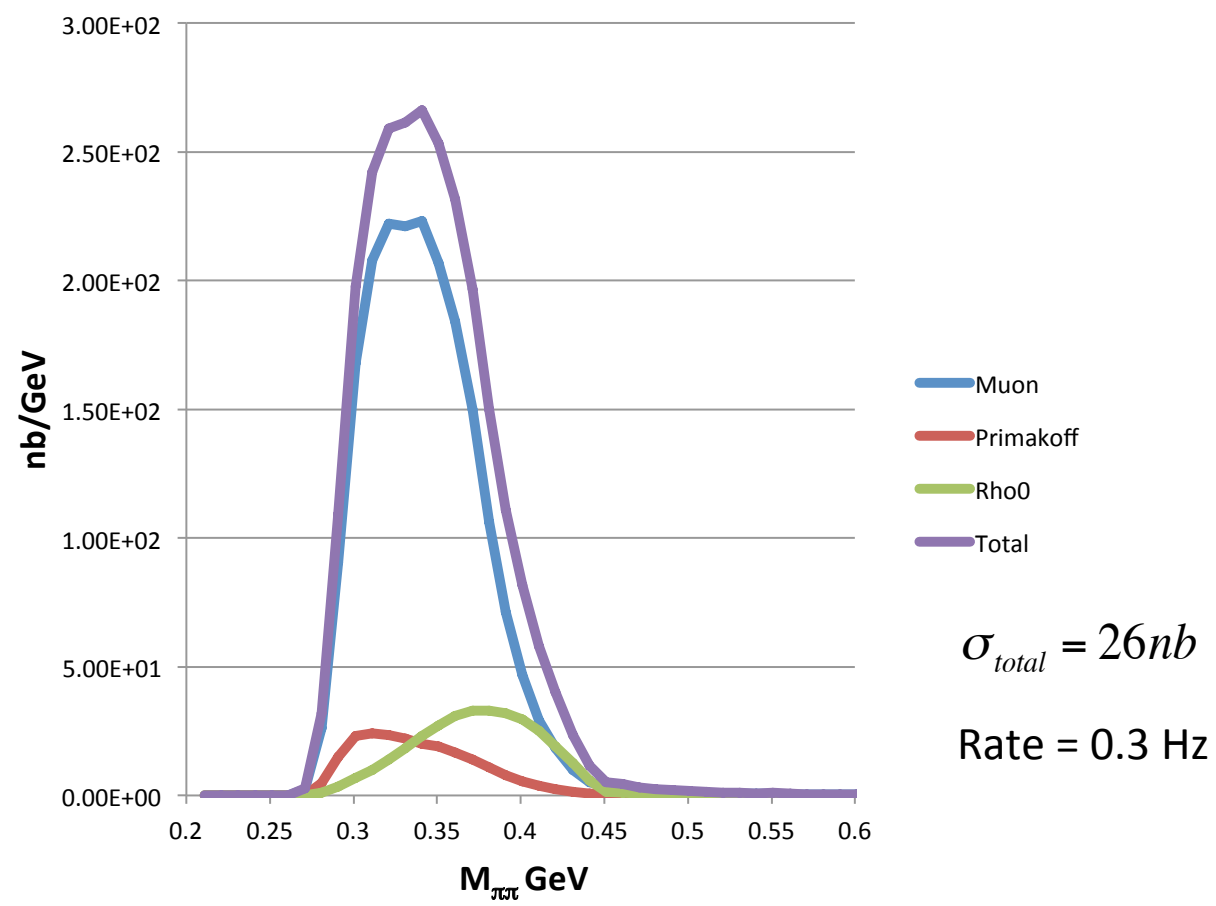
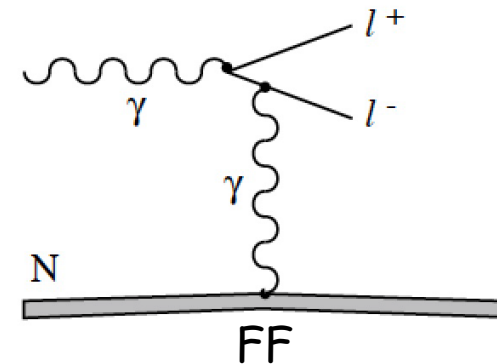


# Charged pair photoproduction cross sections on hydrogen for pairs going into the downstream MWPC



# Lepton Pair Photoproduction with Polarized Photons



In Born approx:

$$\frac{d\sigma_B^c}{dx d\Omega_1 d\Omega_2} = \frac{2\alpha^3 Z^2 \omega^4 x^2 (1-x)^2}{\pi^2 (\vec{q}^2)^2} \times \left[ W_{\text{unp}} + P_\gamma W_{\text{pol}} \cos(2\phi) \right] \times \left| F_{\text{nuclear}}(\vec{q}^2) - F_{\text{atomic}}(\vec{q}^2) \right|^2$$

Experimental tests ?

with  $W_{\text{unp}} = [x^2 + (1-x)^2] |\vec{J}_T|^2 + m^2 |J_S|^2;$   $W_{\text{pol}} = -2x(1-x) |\vec{J}_T|^2.$

$$J_S = \frac{1}{\vec{p}_1^2 + m^2} - \frac{1}{\vec{p}_2^2 + m^2} \quad \vec{J}_T = \frac{\vec{p}_1}{\vec{p}_1^2 + m^2} + \frac{\vec{p}_2}{\vec{p}_2^2 + m^2}$$

$\phi$  is the angle between the photon polarization direction and  $\vec{J}_T$