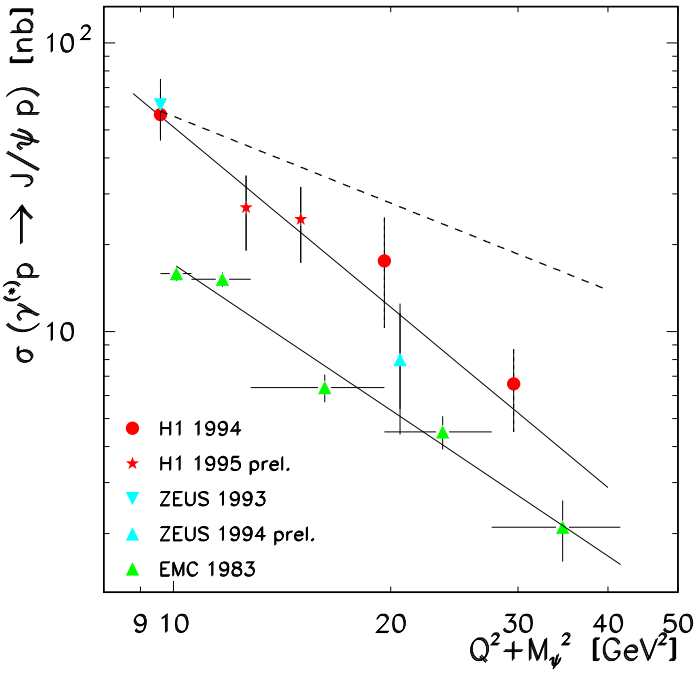
Elastic J/Ψ Production in DIS

Cross section dependence on Q^2 and $W_{\gamma^* p}$:

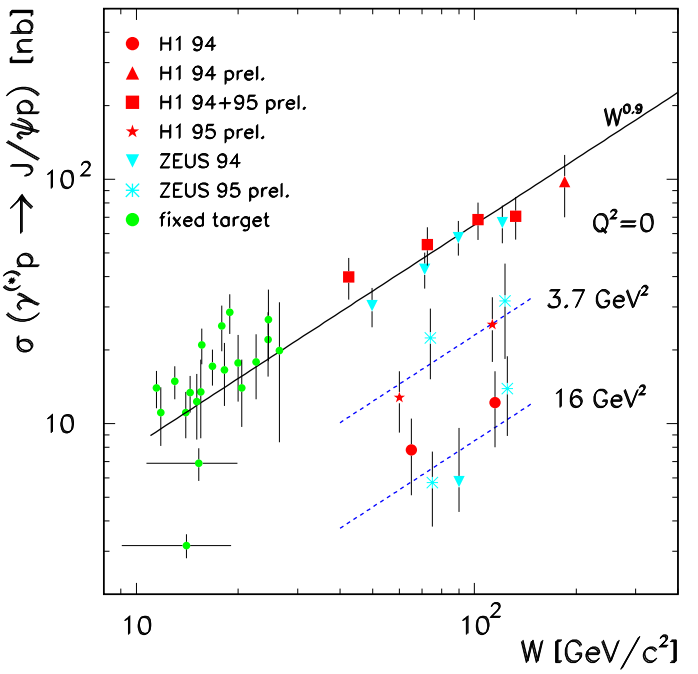


Q^2 dependence of cross section :

$\sigma(\gamma p \to J/\Psi p) \propto \frac{1}{(Q^2+m_\Psi^2)^n}$

fit: $n \simeq 2 \approx$ n(EMC)=1.7

$\Longrightarrow$ $m_{J/\psi}$-influence visible



$W_{\gamma p}$ dependence of cross section at high Q^2 :

$\Rightarrow$ similar rise as at $Q^2 = 0$

$\sigma(\gamma p \to J/\Psi p) \propto W_{\gamma p}^n$

$n \simeq 1.$ $\to$ hard process