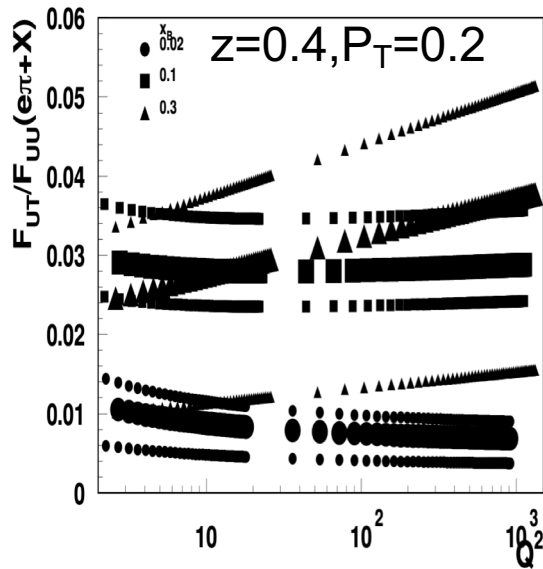


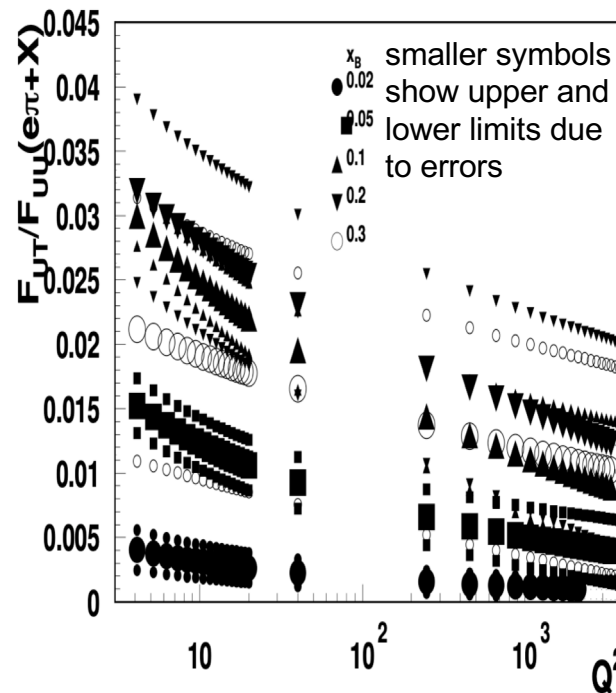
Comparing Sivers: Evolution studies

Boglione et al



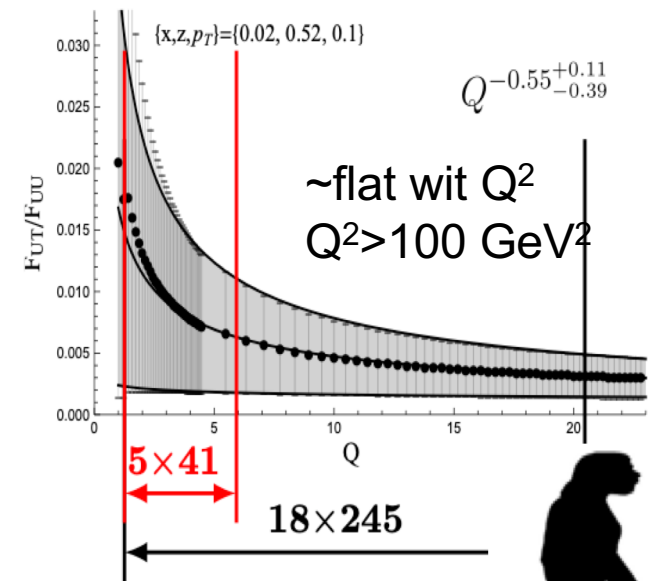
no evolution

JAM



“some” evolution

Vladimirov

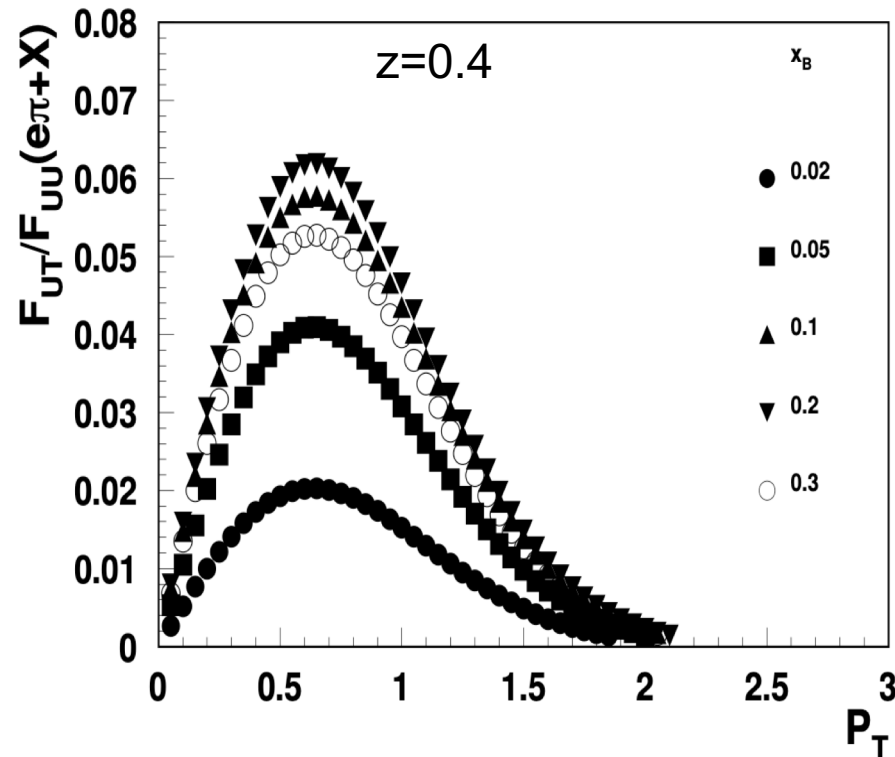


with evolution

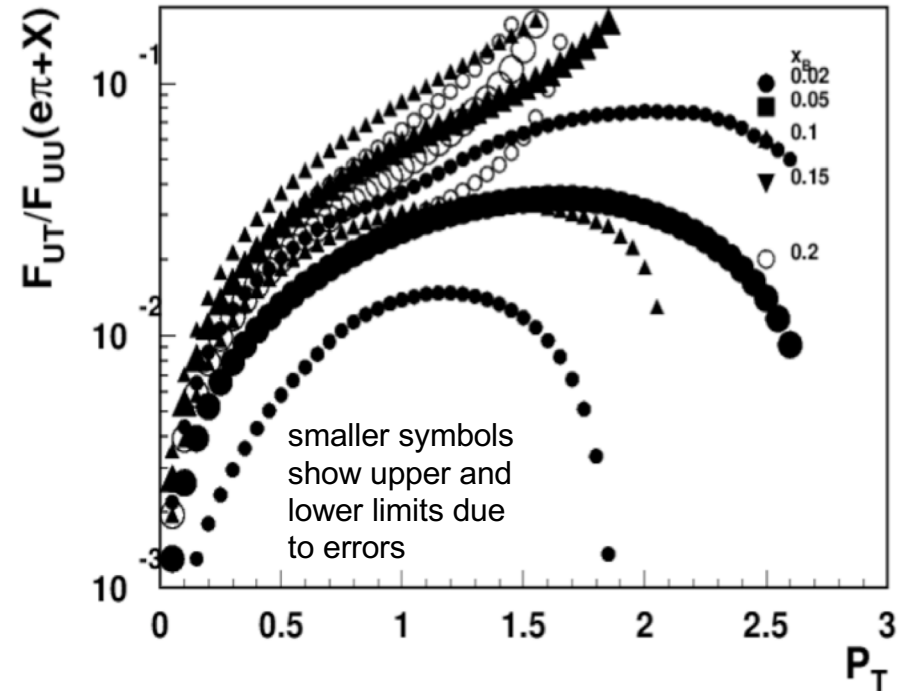
- Evolution effects are more significant, proper the evolution is accounted in the extraction process.
- SSA clearly reduces with Q^2 (sub percent effects above $Q^2 > 10 \text{ GeV}^2$) introducing a challenge to measure it at very large Q^2 , where the statistics will be also limited

Comparing Sivers: P_T -dependences

Boglione et al (consistent with JAM)



Vladimirov



The fit, where the large P_T region has unrealistically large contributions, may emulate “sensitivity” at large x and large s with larger Q^2 (inconsistent with other Sivers extractions)

All TMD extraction, including Sivers, were done using the accessible kinematical range, and should be used with care outside of those limits