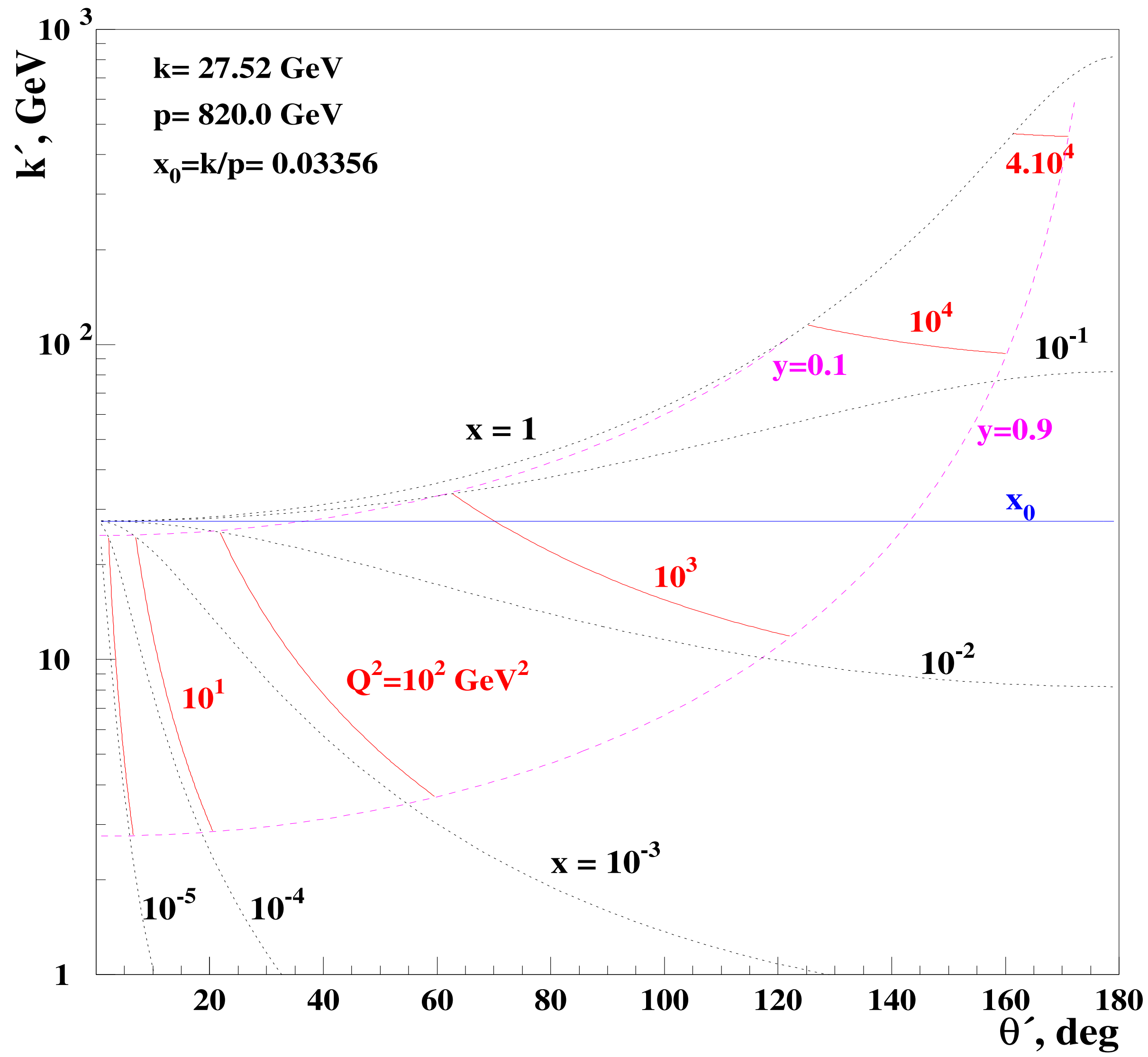
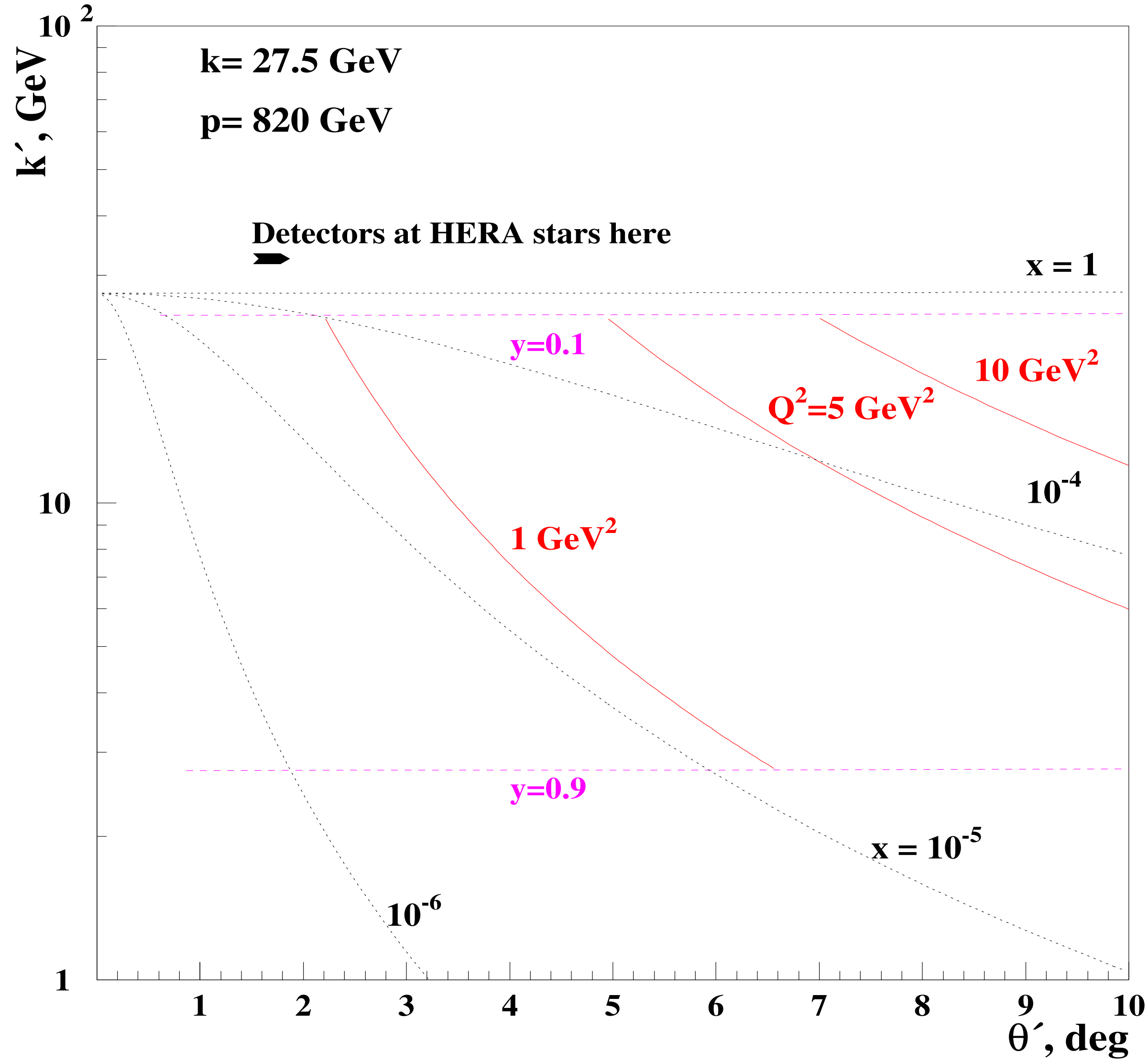
General view of the ep kinematics at HERA



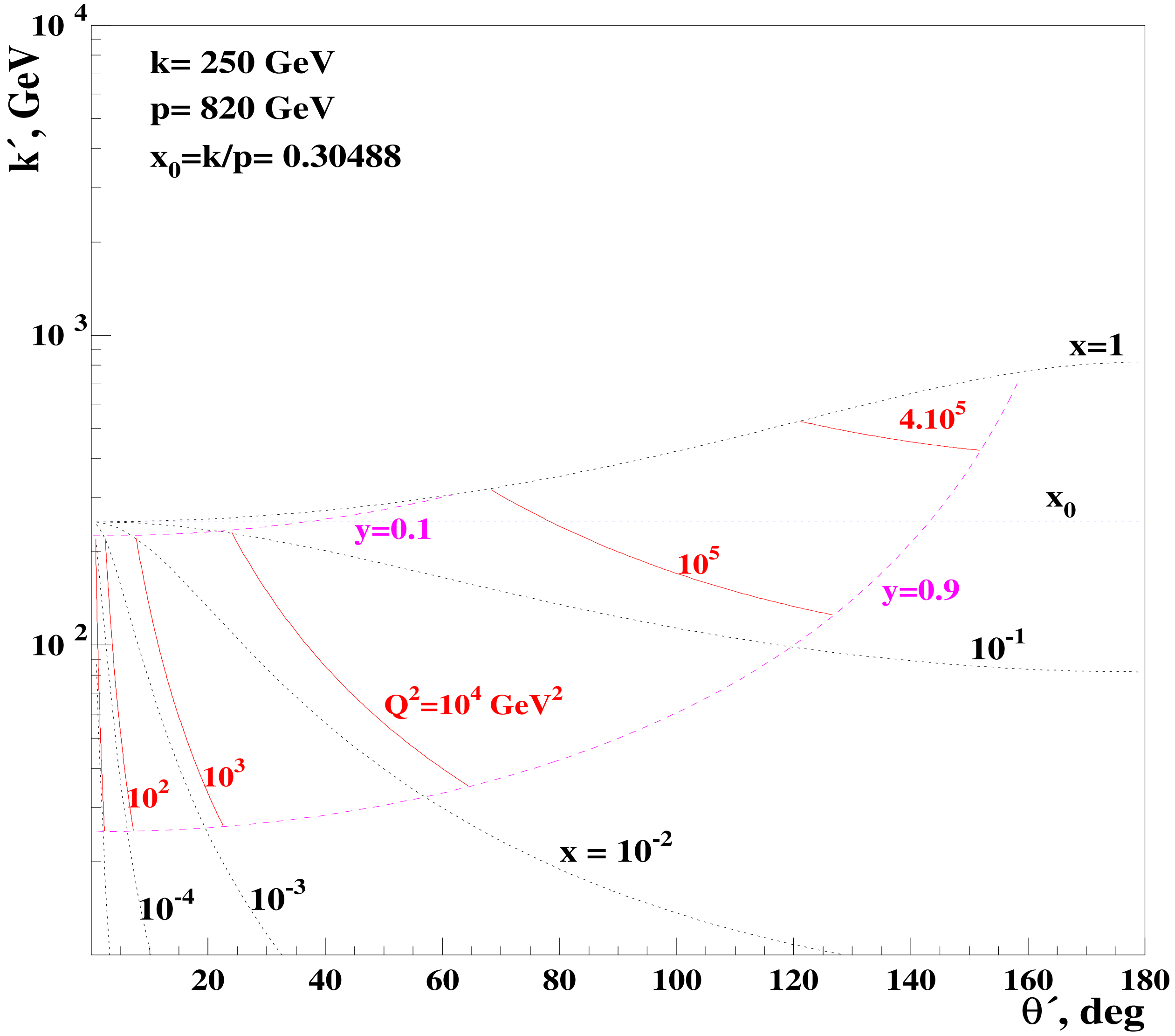
Scattered lepton momentum k' as a function of θ' at different values of x, y and Q^2. The polar angle θ' of the final $e^{\pm}$ is defined relative to the incoming $e^{\pm}$ direction. The line marked with $x = x_0$ corresponds to the space-like ($q_0 = 0$) virtual photon in the laboratory frame.

Scattering at small angels (HERA)



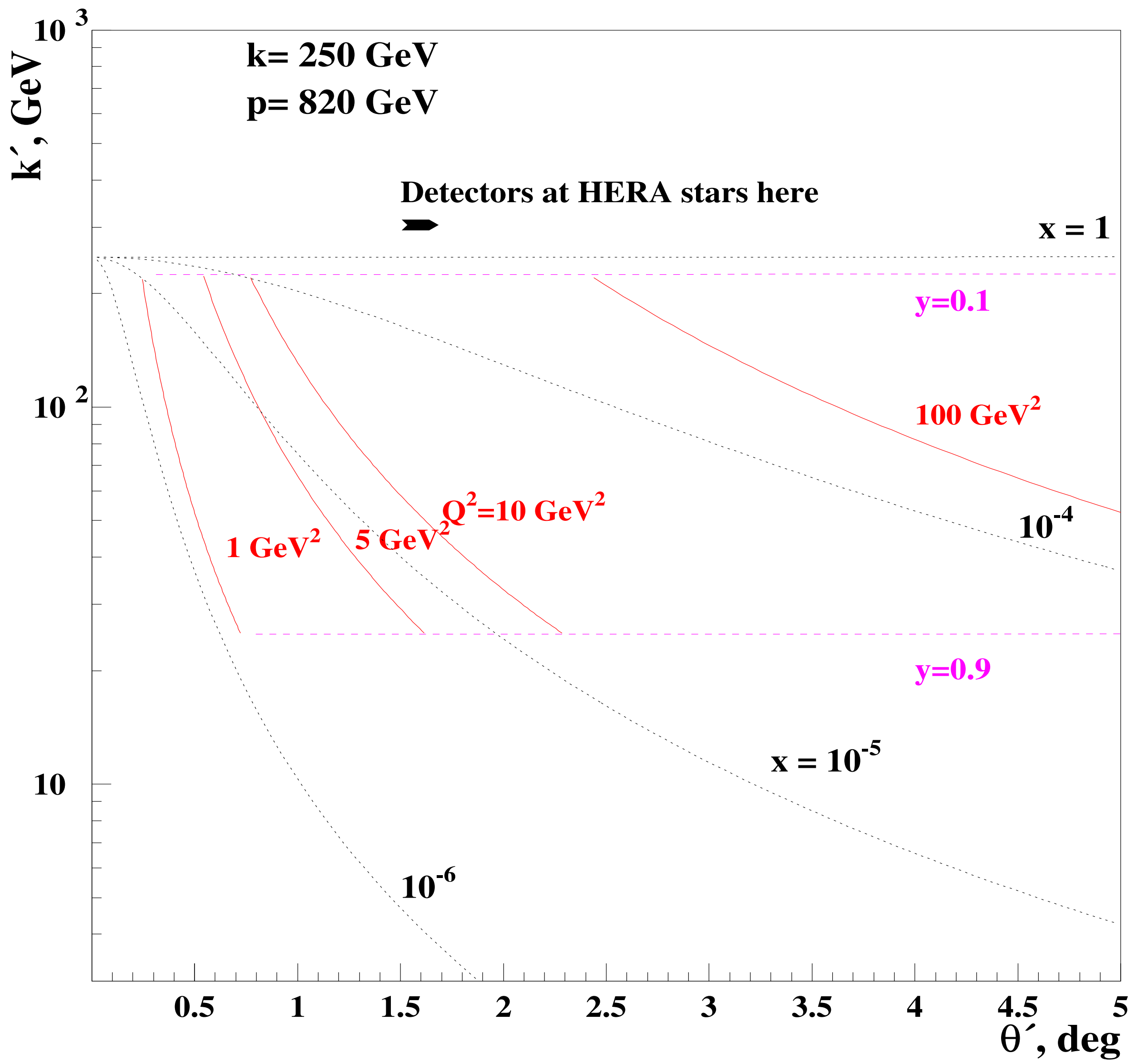
Iso-lines of kinematic variables $x,\ Q^2,\ y$ in the (θ', k') plane. The polar angle θ' of the final $e^{\pm}$ is defined relative to the incoming $e^{\pm}$ direction.

General view of the ep kinematics at THERA



Scattered lepton momentum k' as a function of θ' at different values of x, y and Q^2. The polar angle θ' of the final $e^{\pm}$ is defined relative to the incoming $e^{\pm}$ direction. The line marked with $x = x_0$ corresponds to the space-like ($q_0 = 0$) virtual photon in the laboratory frame.

Scattering at small angels (THERA)



Iso-lines of kinematic variables x, Q^2, y in the (θ', k') plane. The polar angle θ' of the final $e^{\pm}$ is defined relative to the incoming $e^{\pm}$ direction.