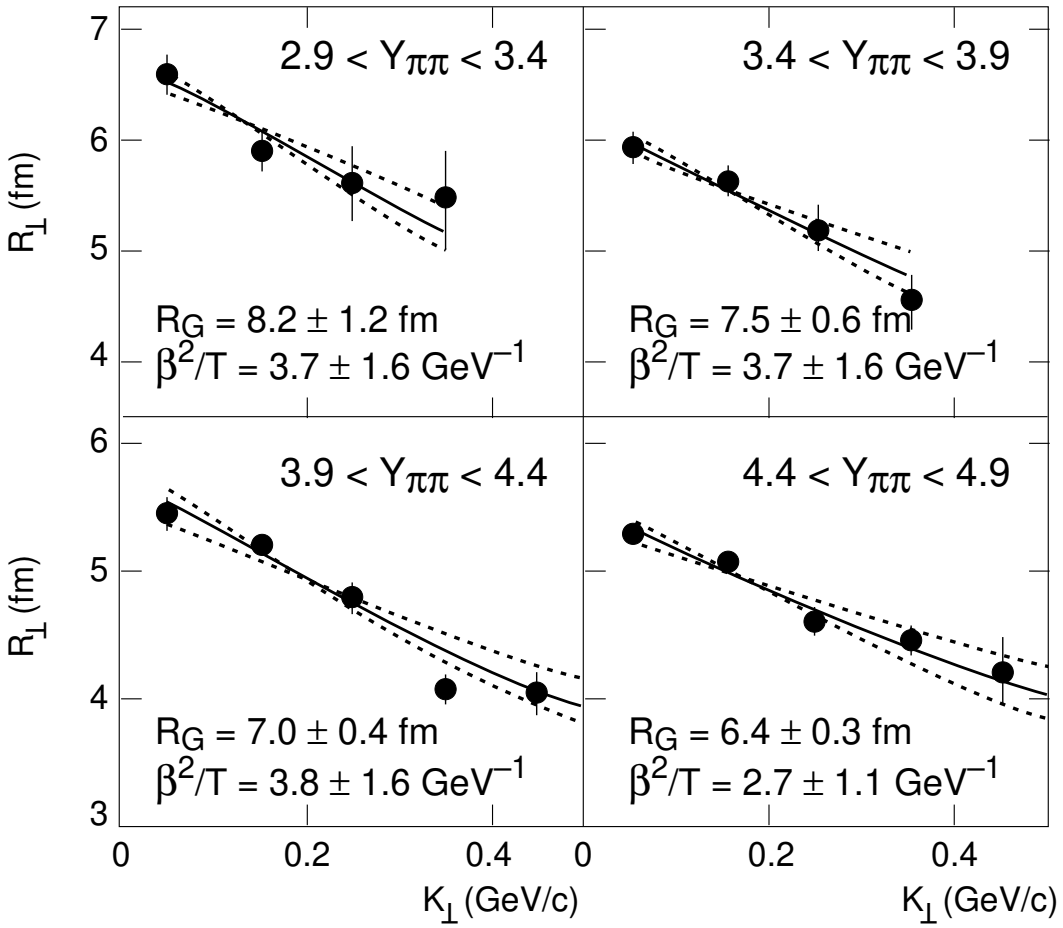
correlation in the transverse direction

NA49



$$R_\perp = R_G \cdot [1 + \frac{M_T \beta_\perp^2}{T} cosh(Y_{YKP} - Y_{\pi\pi})]^{-\frac{1}{2}}$$

$$M_T = \sqrt{m_\pi^2 + K_\perp^2}$$

decrease of $R_\perp$ with $K_\perp$ signals radial expansion flow

freezeout: $R_G = 7.5fm$

Pb nucleus: transverse $R_{rms} = \frac{7fm}{\sqrt{5}} = 3fm$

factor 2 expansion in radial size