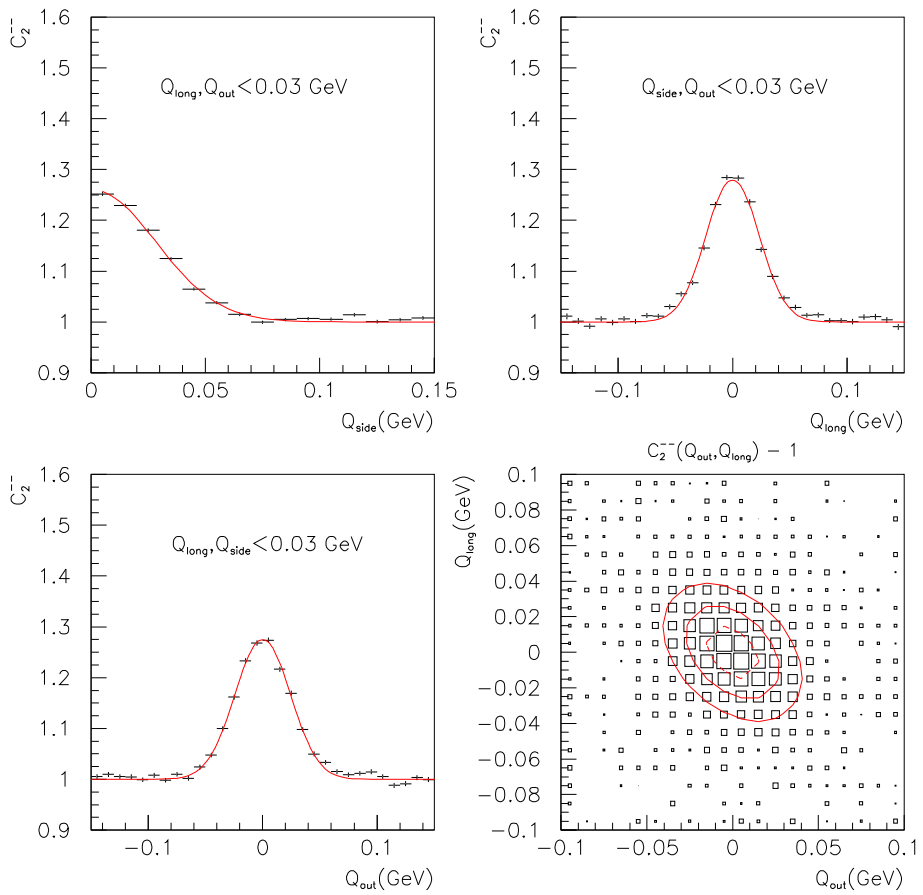
analysis in the cartesian system (Bertsch,Pratt)

$$C_2(\vec{Q},\vec{K}) = 1 + \lambda \cdot exp(-Q^2_{side}R^2_{side} - Q^2_{out}R^2_{out} - Q^2_{long}R^2_{long} - 2Q_{out}Q_{long}R^2_{out,long})$$

mixes spatial and temporal variances of emission function

$\pi^-\pi^-$ Coulomb corrected ($\pi^+\pi^-$) (NA49 preliminary)

$1.0 < Y_{\pi\pi} < 2.0$, $0.1 < K_\perp < 0.2 GeV/c$



fit result:

$R_{side} = 5.01 \pm 0.05 fm$, $R_{out} = 6.02 \pm 0.07 fm$

$R_{long} = 6.29 \pm 0.07 fm$, $R^2_{long,out} = 14.3 \pm 0.7 fm^2$

$\lambda = 0.433 \pm 0.006$