

paper: System-size dependence of strangeness production in  
nucleus-nucleus collisions at  $\sqrt{s} = 17.3 \text{ GeV}$

current draft: </afs/cern.ch/user/c/choehne/group/paper/size/draft8.ps>

converged to rather brief and precise version:

essential data:  $\pi^\pm$ ,  $K^\pm$ ,  $\phi$ ,  $\Lambda$

essential arguments: understanding the effect as a superposition/ convolution of

- formation of coherent subsystems of increasing size
- canonical strangeness enhancement

in addition (to be prepared): long paper

full statistics from VENUS events\* (5000 events) for  $\pi$ -feeddown:

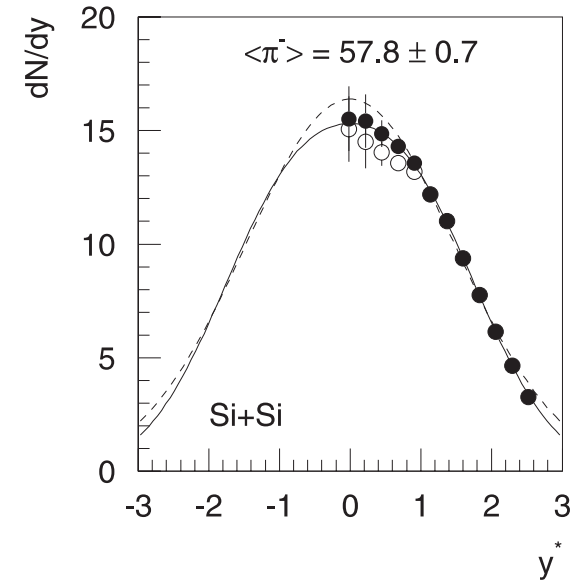
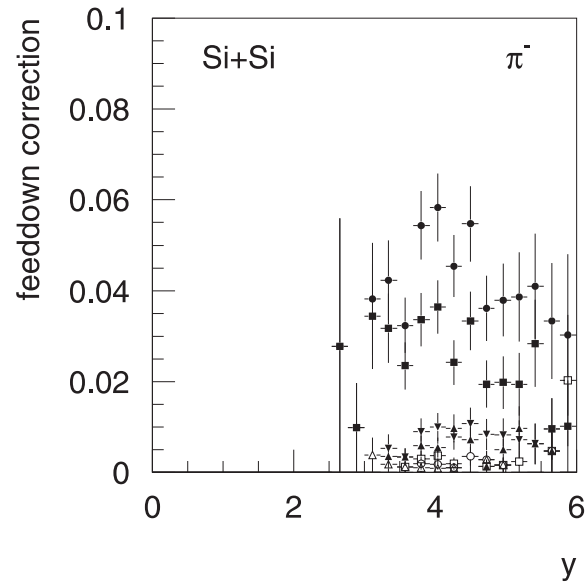
→ minor changes (< 1%), see e.g  $\pi^-$  in SiSi:

old

$$\langle \pi^- \rangle = 57.8$$

$$\sigma_y = 1.06$$

$$\gamma_\Delta = 0.89$$

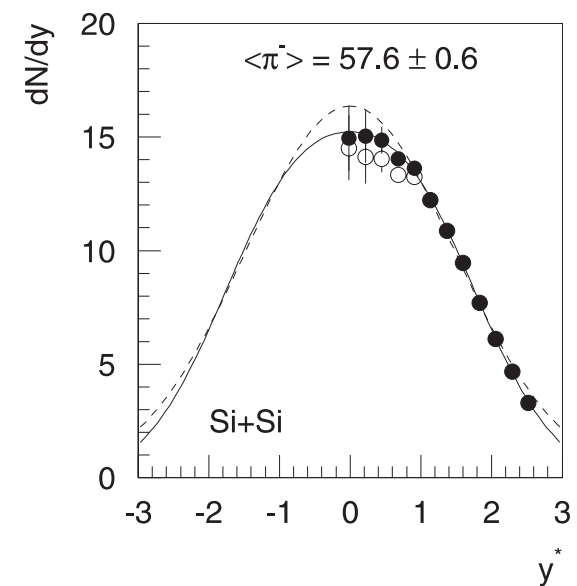
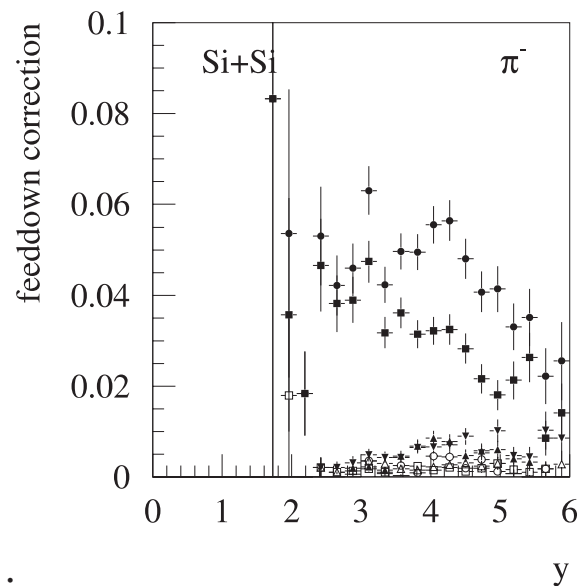


new

$$\langle \pi^- \rangle = 57.6$$

$$\sigma_y = 1.05$$

$$\gamma_\Delta = 0.89$$



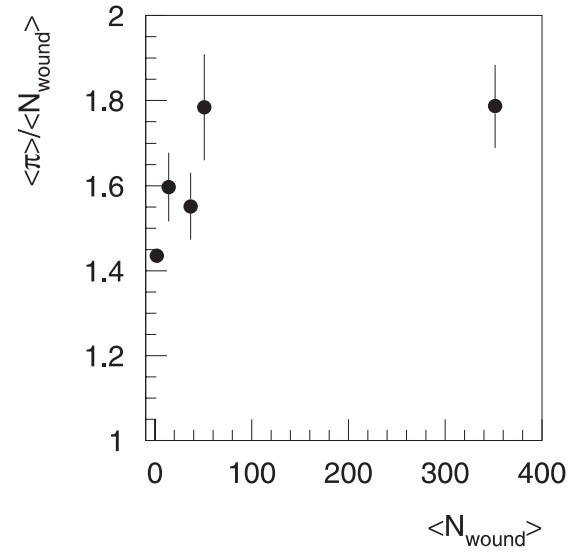
\* thanks to Michael Mitrovski

proposal for long paper:

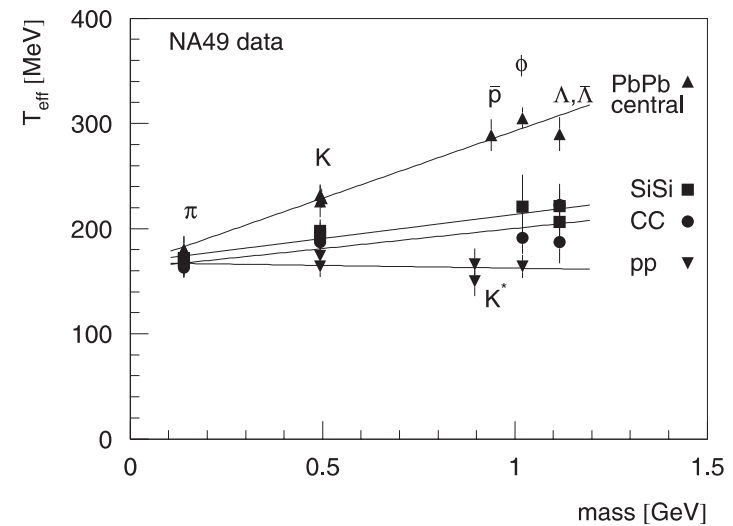
data:  $\bar{\Lambda}$

compare to  $\pi^\pm, K^\pm, \phi, \Lambda$

discussion:  $\pi/N_{\text{wound}} \rightarrow$  increase of entropy

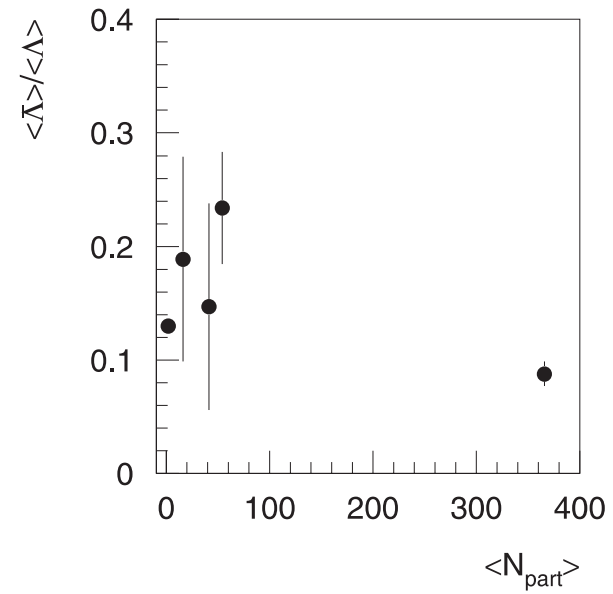
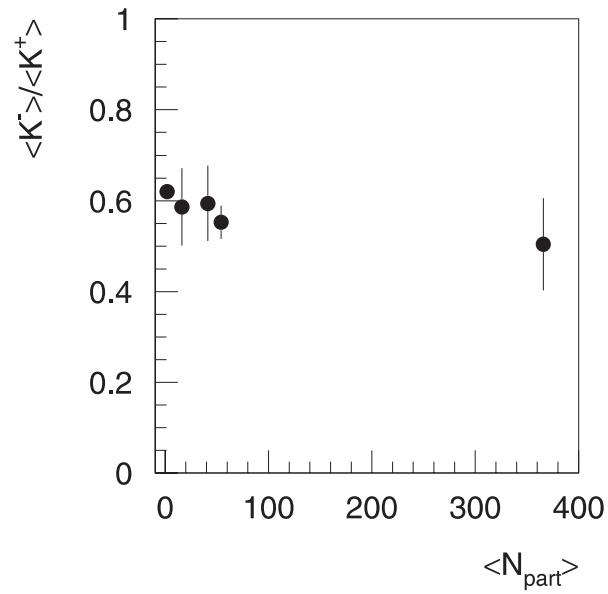


T vs mass  $\rightarrow$  transverse flow



$4\pi$  and/or midrapidity ratios of  $K^-/K^+$  and  $\bar{\Lambda}/\Lambda$

→ discussion of baryon density, stopping  
possible consequence for strangeness production?



comparison of models to data?