## Lambda and Anti-Lambda Production in central Pb+Pb Collisions at 40, 80, and 158AGeV

Andre Mischke



**Universiteit Utrecht** 

- Editorial Committee has formed up Members: Reinhard, Peter, Kreso, Michiel, Christoph
- Proceed to draft05 (available in ~amischke/group/PAPER)

NA49 Collaboration Meeting, March 28<sup>th</sup> – 31<sup>th</sup> 2003, CERN

## Structure of the Paper

- Introduction (revised by Reinhard): strangeness enhancement

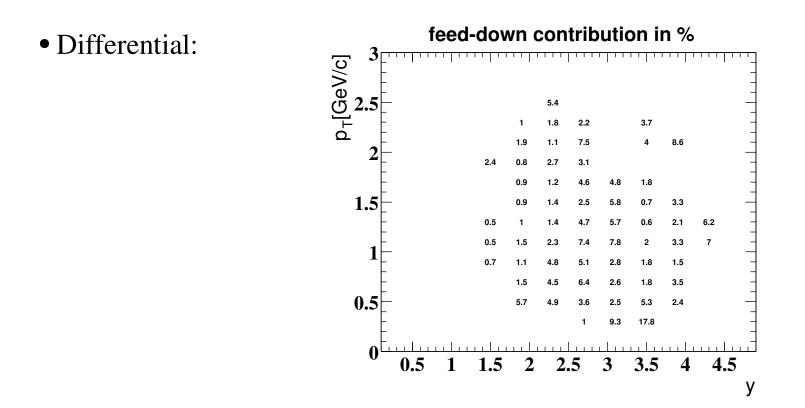
  - C -> GC ensemble (can. suppression)
  - energy dependence of s production
- Technical part: - NA49 experimental setup
  - Data-sets (# events, cross sections,...)
  - V0 reconstruction / Quality cuts
  - minv spectra (mass resolution) -> fig.1
  - Corrections (geo. acceptance and reconstruction effi., background, feed-down)
  - systematic errors / feed-down
- Results: mT-spectra -> fig. 2
  - rapidity distributions (shapes) -> fig. 3 + tab.
  - comparision with other results: WA97, NA45
  - total yields (extrapolations)
  - energy dependence (pp < ->AA) -> fig. 4
- Comparison with model predictions, HGM, UrQMD, HSD (also for antiL)
- Summary

## Feed-down Correction

- Main contribution from:  $\Xi^0 \rightarrow \Lambda \pi^0 (100\%)$  $\Xi^- \rightarrow \Lambda \pi^- (100\%)$
- Make a full Simulation for  $\Xi^-$ :
  - Simulation using NA49 results on  $\Xi^-$  (from Rob): T=267MeV,  $\sigma_y=1$
  - ~150,000 single reconstructed events (w/o embedding)
  - Run them through the quality cuts (x,y\_targ,...)

## Feed-down contribution from $\Xi^{-}$

• In total: (decay Lambdas/event) / (raw real Lambdas/event) =  $0.0036/0.14 \sim 2.6\%$ 



Mon Mar 24 15:18:38 2003