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

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

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Structure of the Paper

- Introduction (revised by Reinhard): strangeness enhancement

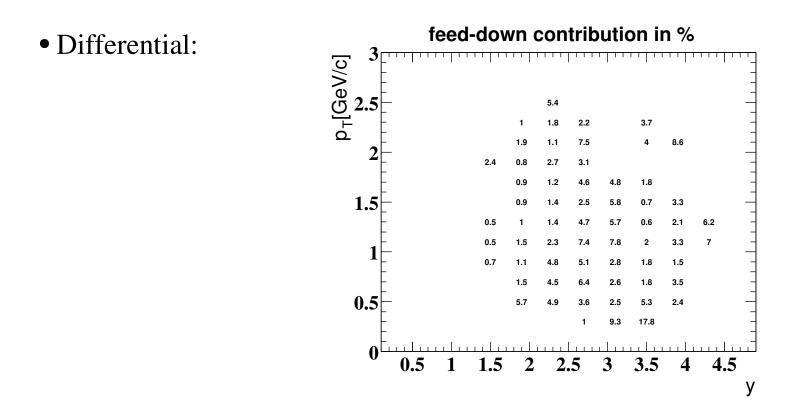
 - C -> GC ensemble (can. suppression)
 - energy dependence of s production
- Technical part: - NA49 experimental setup
 - Data-sets (# events, cross sections,...)
 - V0 reconstruction / Quality cuts
 - minv spectra (mass resolution) -> fig.1
 - Corrections (geo. acceptance and reconstruction effi., background, 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 Ξ^- :
 - Simulation using NA49 results on Ξ^- (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 Ξ^{-}

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



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