

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

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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 \rightarrow GC ensemble (can. suppression)
 - energy dependence of s production
- **Technical part:**
 - NA49 experimental setup
 - Data-sets (# events, cross sections,...)
 - V0 reconstruction / Quality cuts
 - m_{inv} spectra (mass resolution) \rightarrow **fig. 1**
 - Corrections (geo. acceptance and reconstruction effi., background, feed-down)
 - systematic errors / **feed-down**
- **Results:**
 - m_T -spectra \rightarrow **fig. 2**
 - rapidity distributions (shapes) \rightarrow **fig. 3** + **tab.**
 - **comparision with other results: WA97, NA45**
 - total yields (extrapolations)
 - energy dependence (**pp \leftrightarrow AA**) \rightarrow **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): $T=267\text{MeV}$, $\sigma_y=1$
 - $\sim 150,000$ 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 ~ **2.6%**

- Differential:

