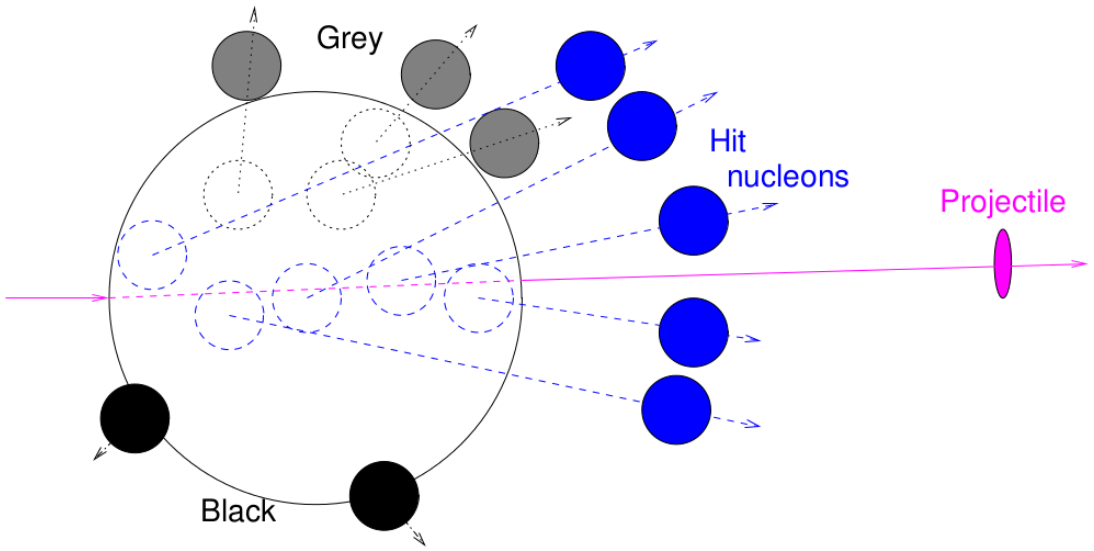
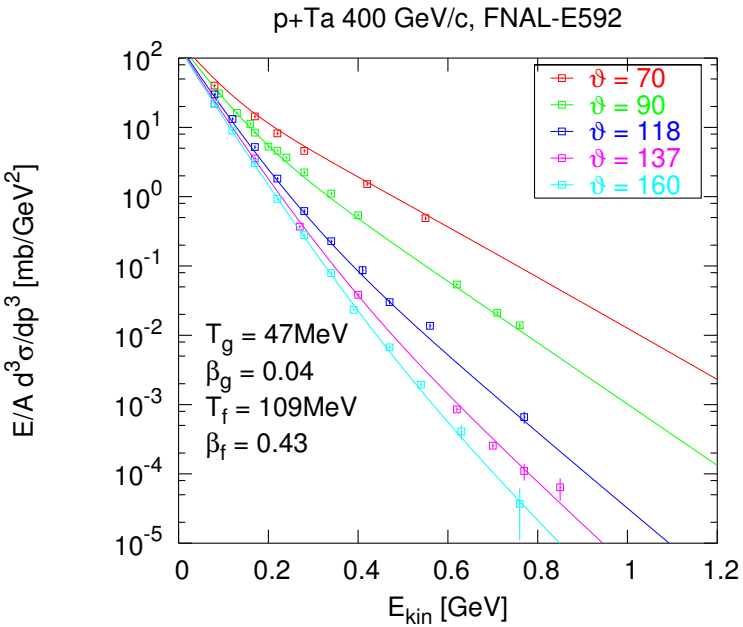
Hadron-nucleus collisions



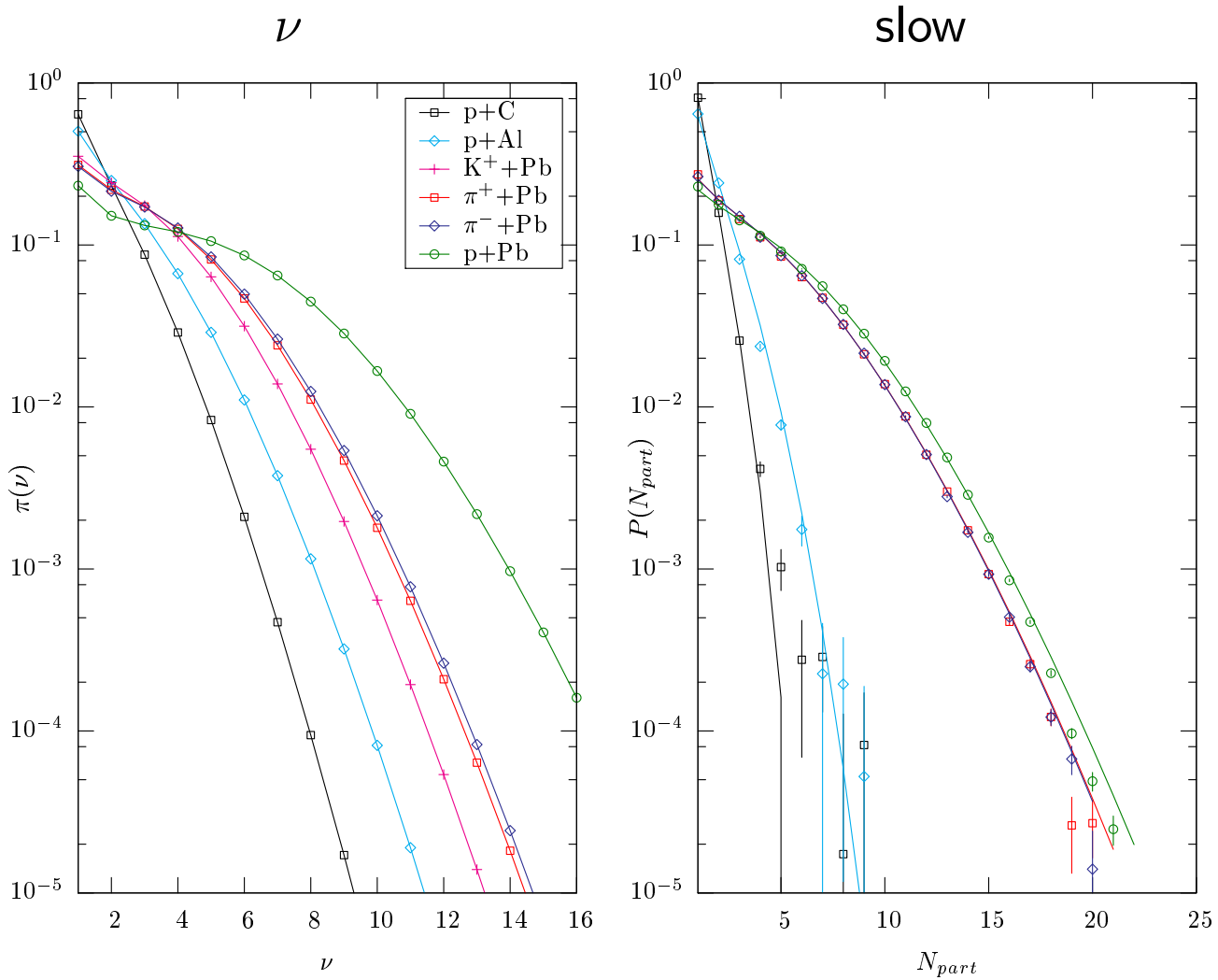


	p_{lab} [GeV/c]	T_b [MeV]	T_g [MeV]	β_g
CERN-PS208	1.22	4	40	0.05
LBL-E987	1	8	50	
KEK-90	3-4		50-60	0.1-0.2
BNL-E900	5-15	10	50	$\leq$ 0.01
NA49	160	10	50	0.1
FNAL-E592	400		45	0.04
"average"		5	50	0.05

Two sources, gray (secondary) and black (evaporation) nucleons

Connection between the number of slow particles and ν of the projectile?

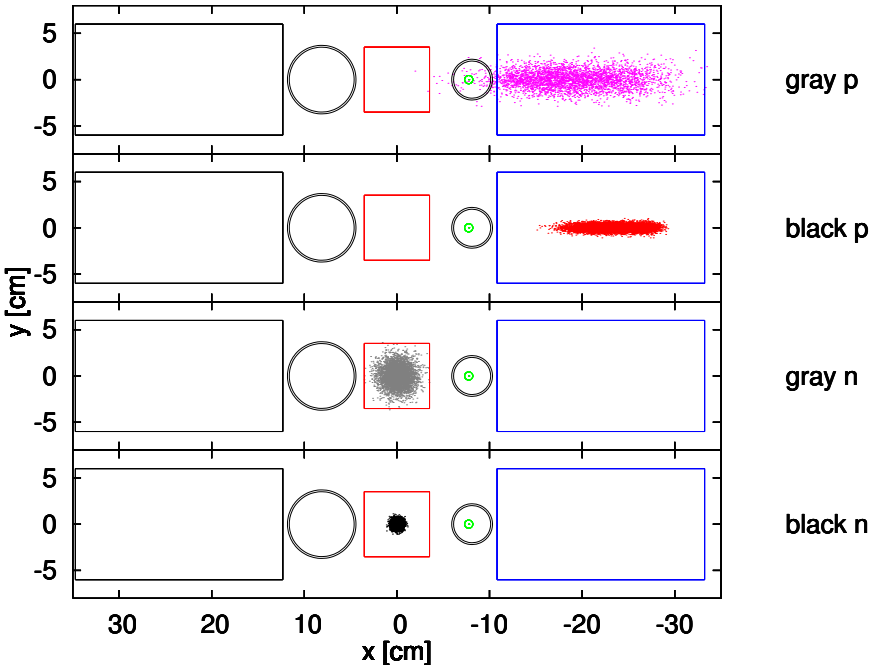
Hadron-nucleon cross-sections?

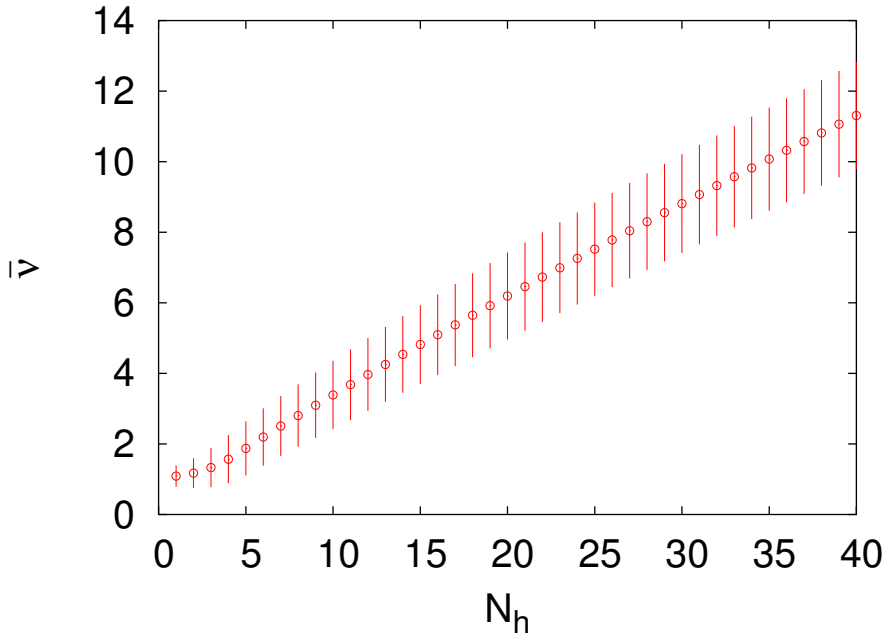


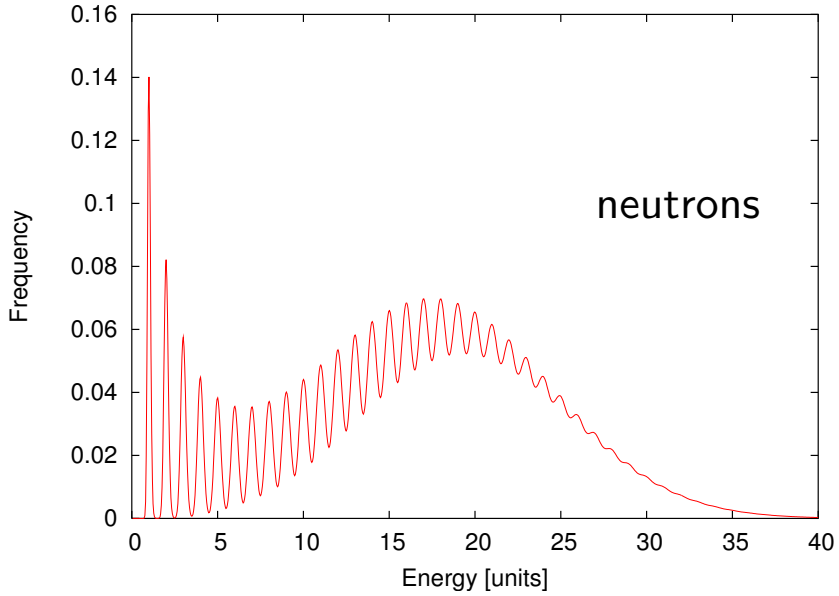
Slow: π+Pb $\approx$ p+Pb, although $\sigma_{\pi N}$ is smaller (2/3 of σ_{pN})
Only the first collisions matters? Geometrical cascade model

This way we are more sensitive to thickness and b than to ν

p-Pb centrality – a study for ALICE







FS, ,,Centrality control of hadron nucleus interactions by detection of slow nucleons ", arXiv:hep-ph/0304065
R. Caliandro et al incl FS, ,,Event Characterization in ALICE", ALICE-INT-2005-034