

# Pion & Proton Absorption Study

# Table

Particle	SHMS Momentum (GeV)	Cut	Absorption (%) or bad events (10,000 Simulated Events)	Absorption (%) or bad events (100,000 Simulated Events)
Pion	2.326	No Cuts	2.16	2.024
Proton	1.729	No Cuts	3.43	3.71
Proton	2.300	No Cuts	3.50	3.232
Proton	2.792	No Cuts	2.84	2.747

# Summary

- The MC does not simulate more than  $\sim 170\text{K}$  events.
  - It starts to print error messages.
  - I've tried several times to simulate the same events as in SIMC for physics analysis (400K), but the same error every time.
  - No idea why?
  - **In the meeting, Nathan mentioned that Alicia used an experimental run number and that may have this limit. Thanks Nathan.**
- I've also made some changes in the physics Yield calculations and saved their values.