

u -Channel Analysis Progress

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April 24, 2025

University of Regina

KaonLT Experiment, Jefferson Lab Hall C



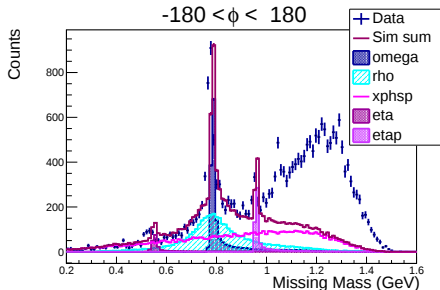
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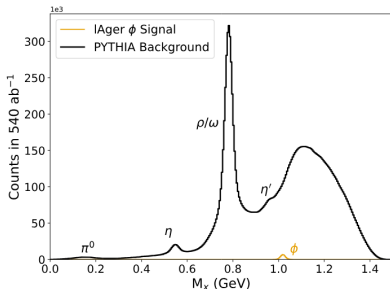
- Interesting discovery about background shape
- Ran proton replay for all $E=10.6$ GeV data
- Comparing settings (SHMS center): lots of plots

SIMC not quite reproducing background at high MMp

My data with SIMC:

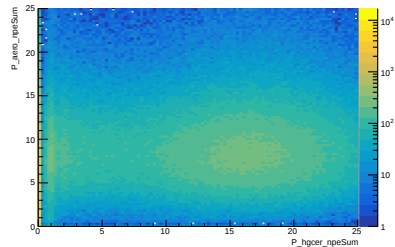
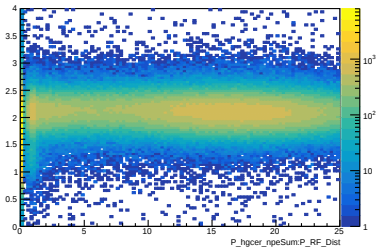
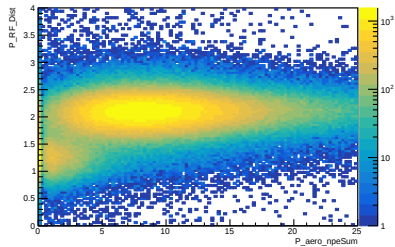
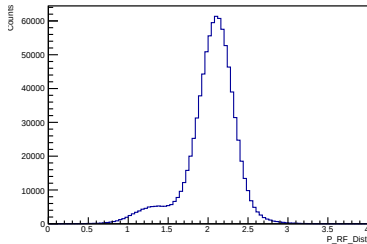


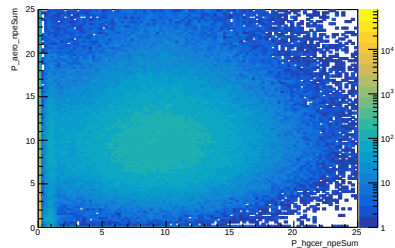
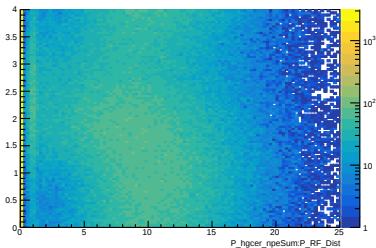
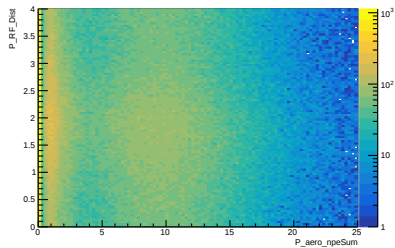
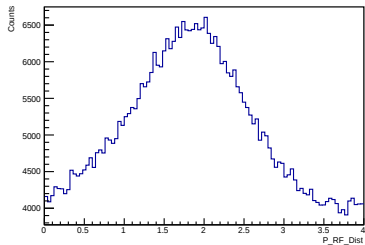
PYTHIA simulation:



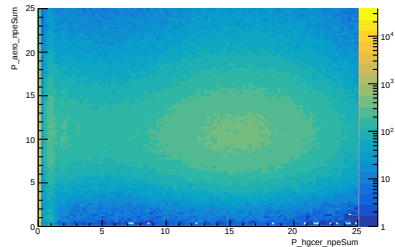
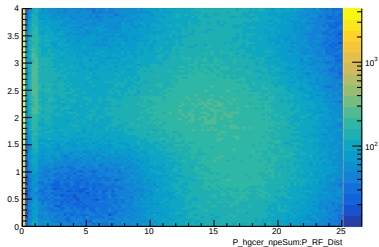
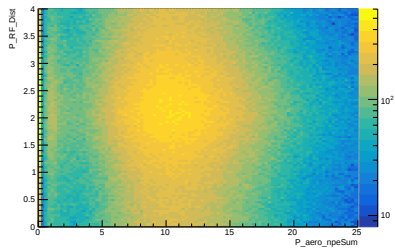
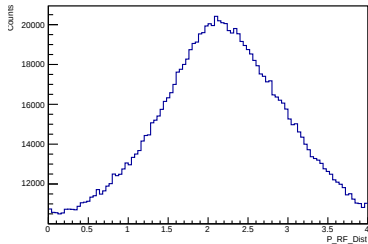
From Henry Klest's presentation "THE STRANGE MECHANICAL STRUCTURE OF THE PROTON IN HALL C" (ϕ production experimental proposal).

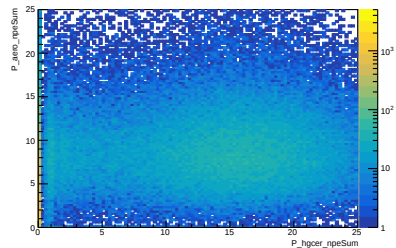
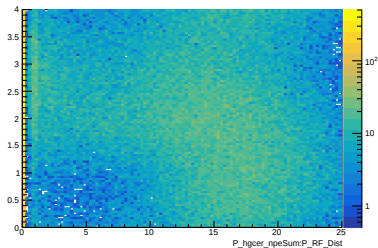
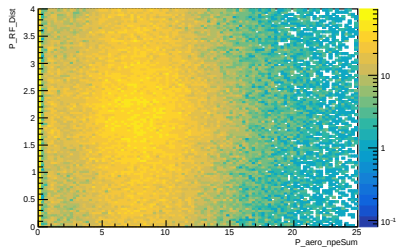
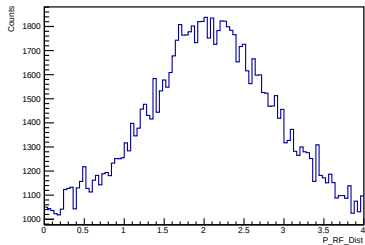
Contacted Henry - attempting to run this code.

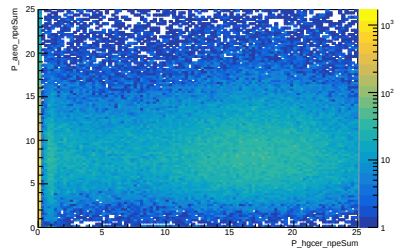
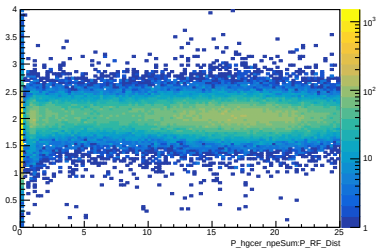
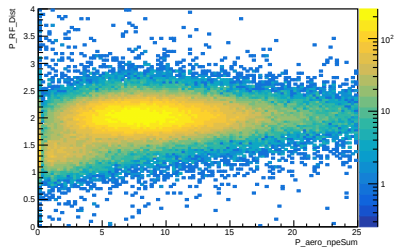
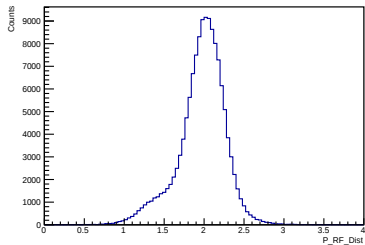


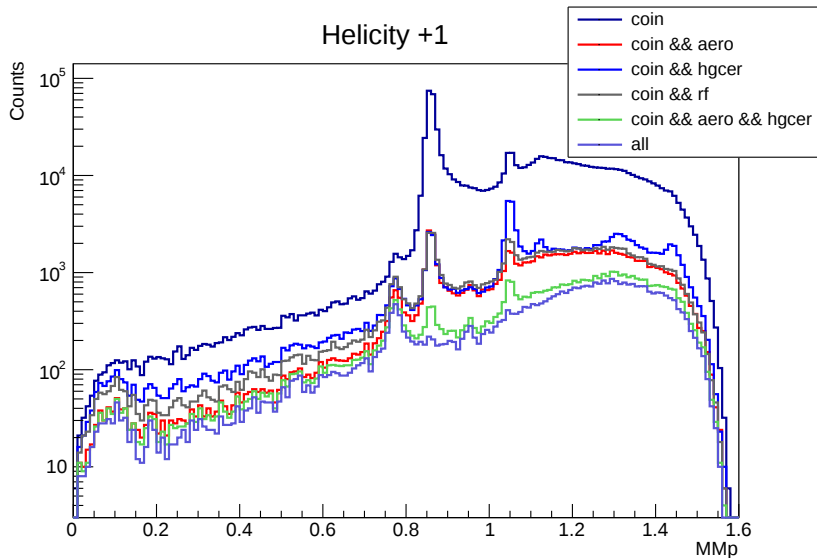


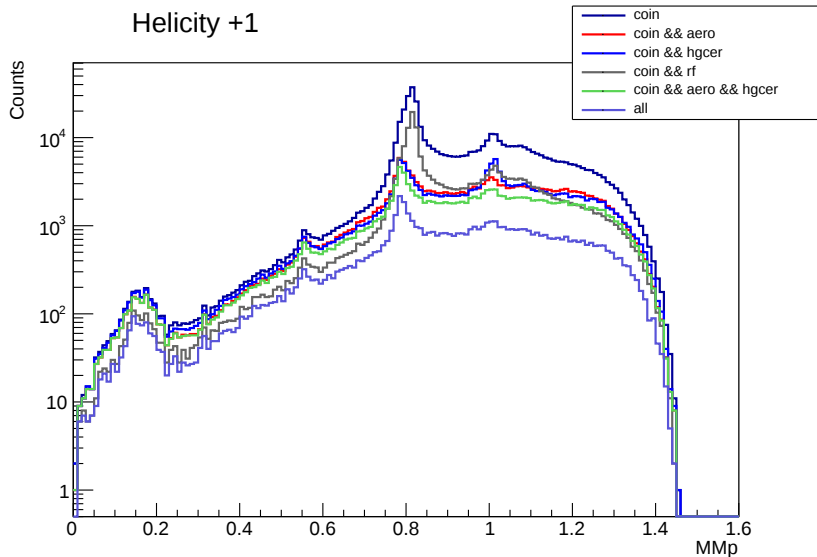
RF: $Q^2=2.1$, $W=2.95$

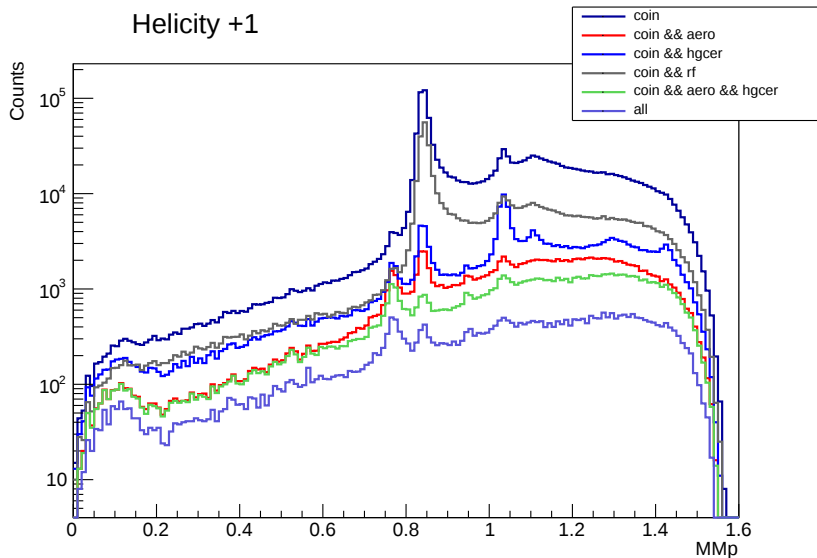


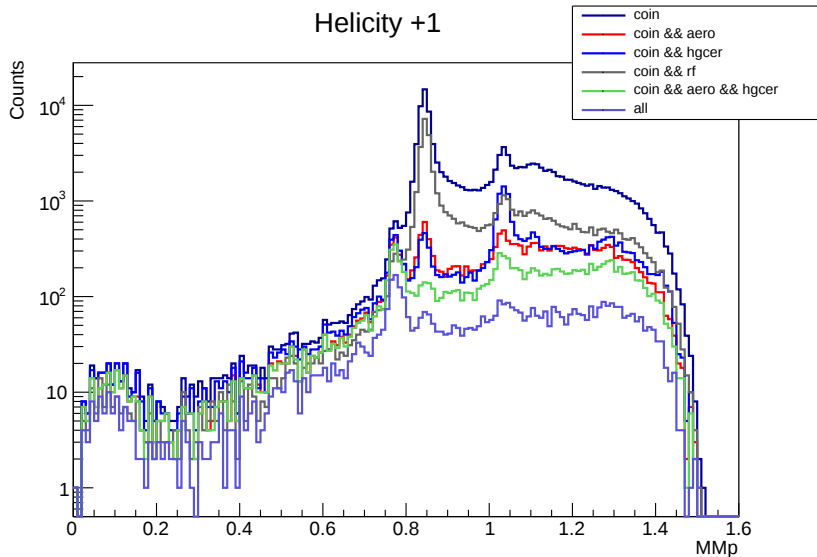


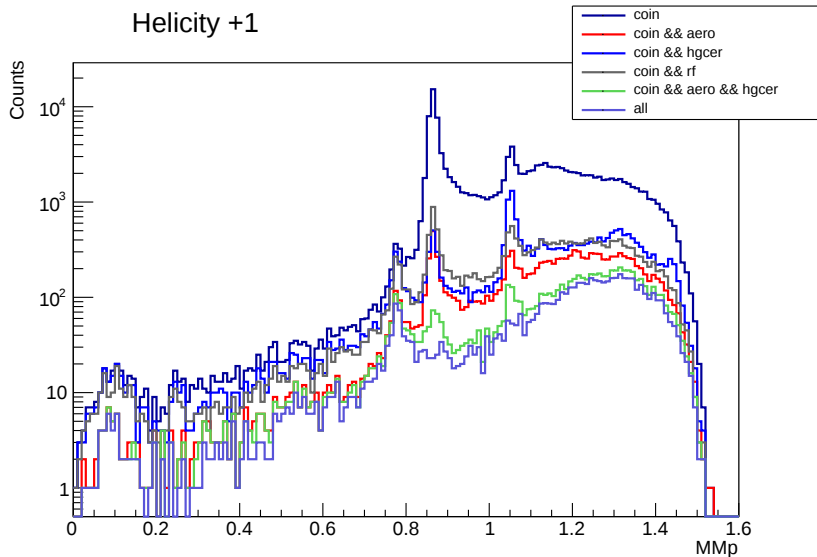


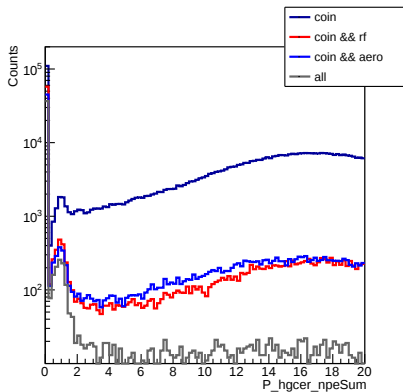
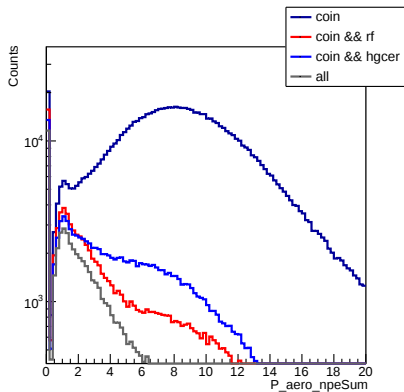


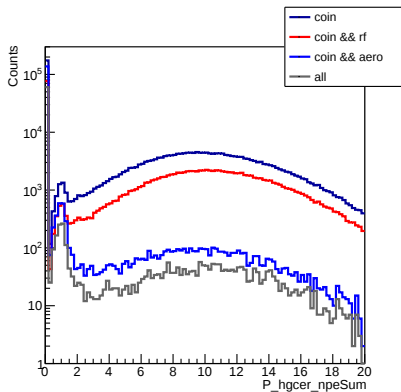
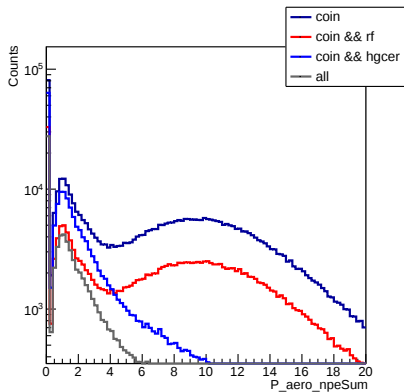


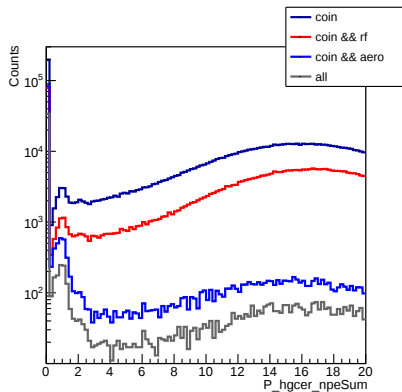
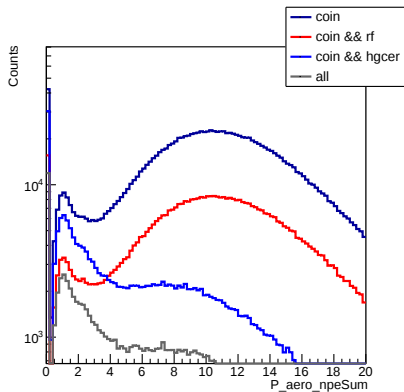


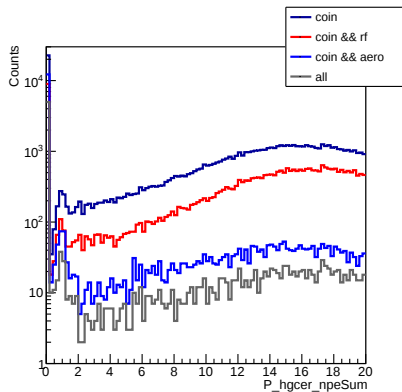
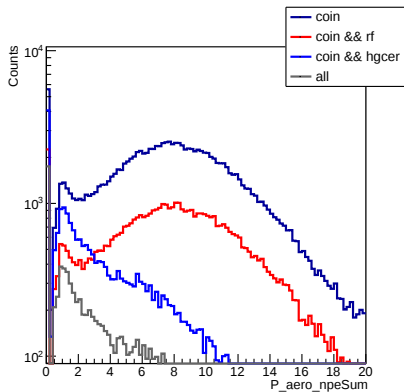


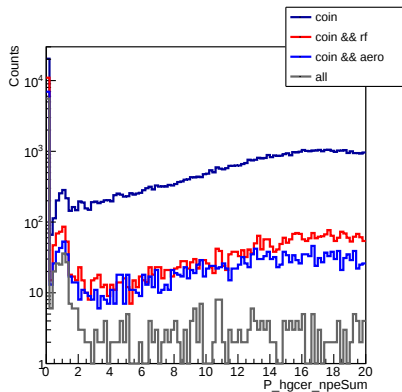
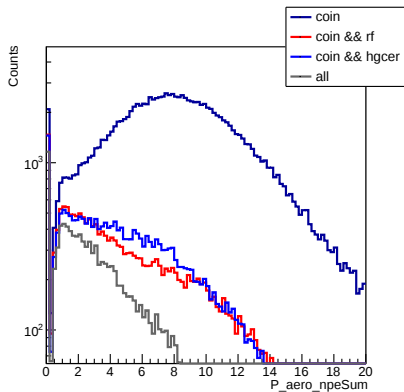














Q^2/W	RF	resolution	statistics	priority
3.0/3.14	good	good	high	1
5.5/3.02	good	good	low	2
2.1/2.95	poor	good	high	3
4.4/2.74	poor	good	low	4
3.0/2.32	poor	poor	moderate	5