

u-Channel Progress

Alicia Postuma

October 23, 2025

University of Regina

KaonLT Experiment, Jefferson Lab Hall C

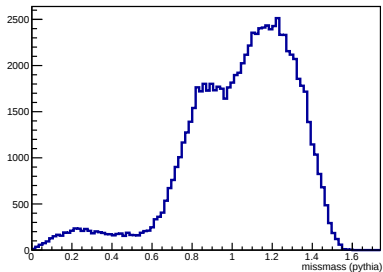


University
of Regina

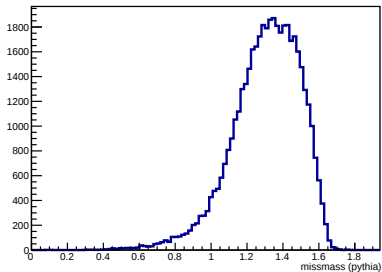


- Weird missing mass spectrum for the setting $Q^2=3.0$, $W=2.32$
- This is the same setting with numerous oddities in the experiment
- But this is simulation – implies something odd at the kinematics?
- Diagnostic plots to follow: all high ϵ , SHMS center

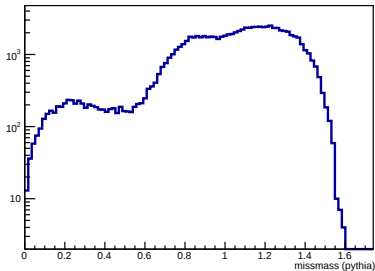
Q2=3, W=2.32



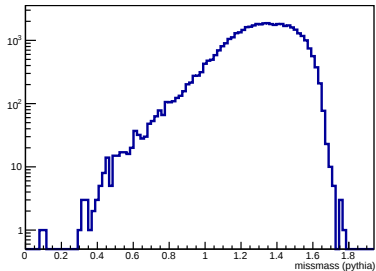
Q2=3, W=3.14

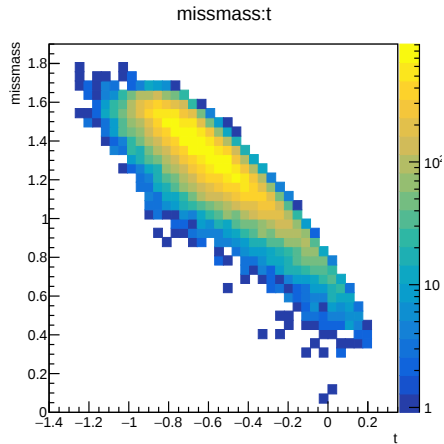
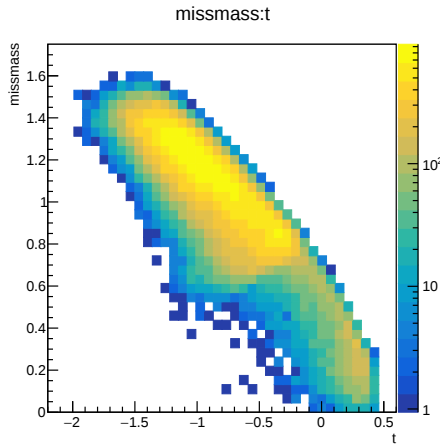


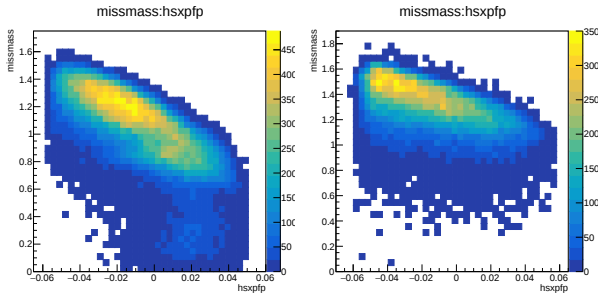
Q2=3, W=2.32



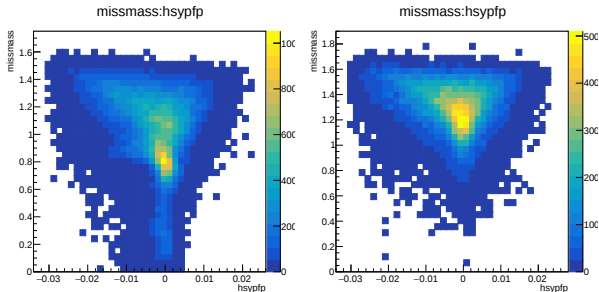
Q2=3, W=3.14



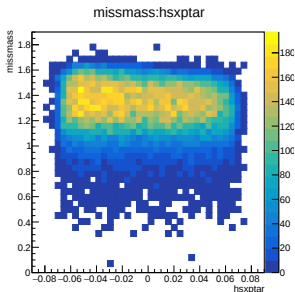
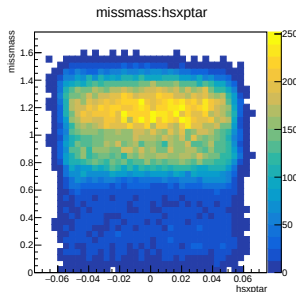




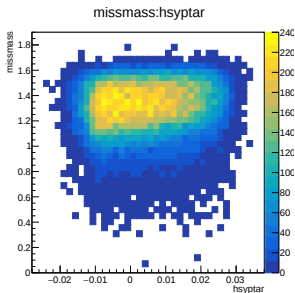
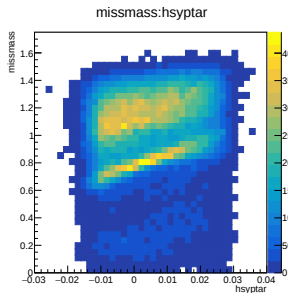
Left: $Q^2=3$, $W=2.32$
 Right: $Q^2=3$, $W=3.14$



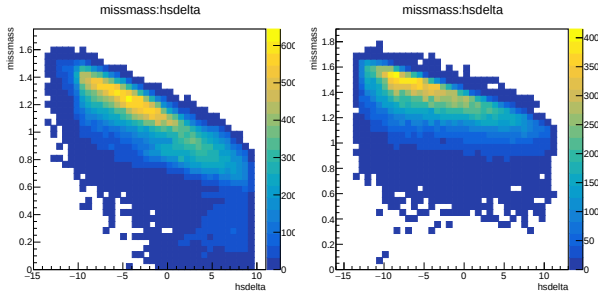
Top: HMS xpf
 Bottom: HMS yfp



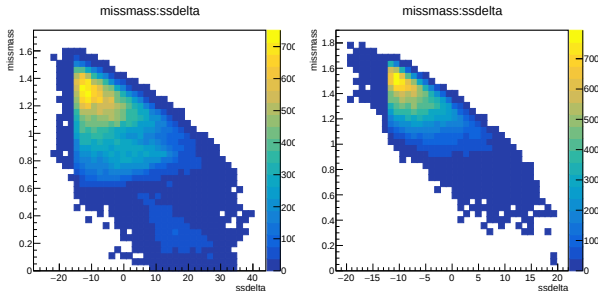
Left: $Q^2=3$, $W=2.32$
 Right: $Q^2=3$, $W=3.14$



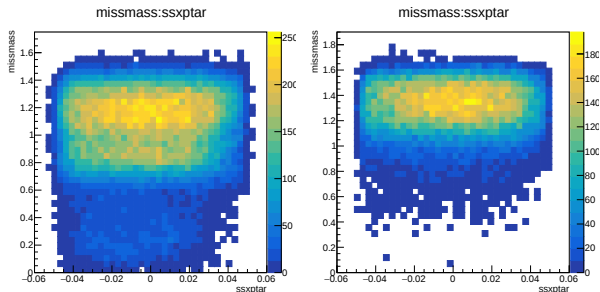
Top: HMS xptar
 Bottom: HMS yptar



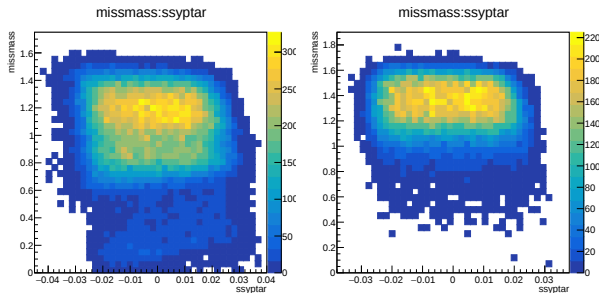
Left: $Q^2=3$, $W=2.32$
 Right: $Q^2=3$, $W=3.14$



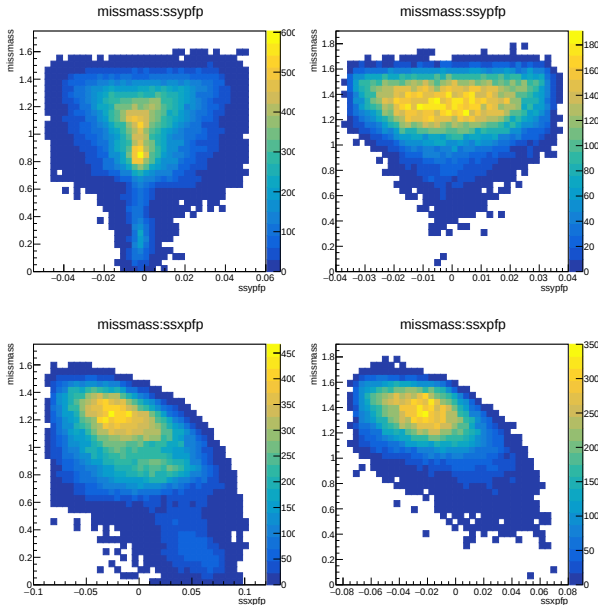
Top: HMS delta
 Bottom: SHMS delta



Left: $Q^2=3$, $W=2.32$
 Right: $Q^2=3$, $W=3.14$

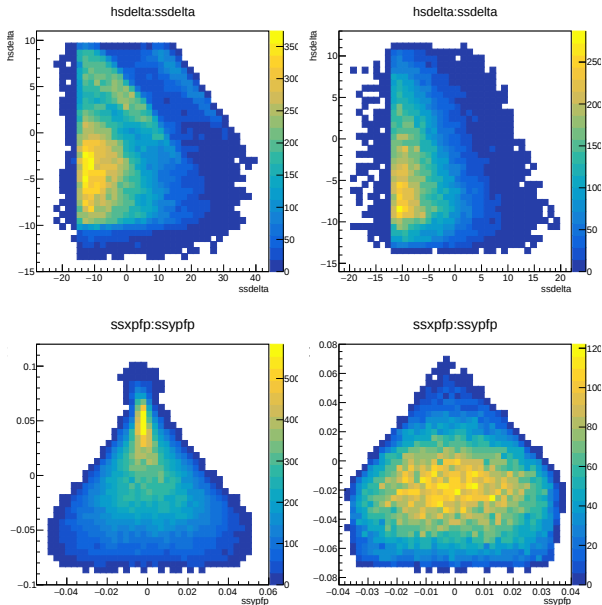


Top: SHMS xptar
 Bottom: SHMS yptar



Left: $Q^2=3$, $W=2.32$
 Right: $Q^2=3$, $W=3.14$

Top: SHMS ypf
 Bottom: SHMS xpf



Left: $Q^2=3$, $W=2.32$
 Right: $Q^2=3$, $W=3.14$

Top: HMS vs SHMS
 delta
 Bottom: SHMS xpf
 vs ypf