

Analysis update

PID Study (SHMS)

$$E_b = 8.18 \text{ GeV}$$

$$X = 0.25$$

$$Q^2 = 3.0 \text{ GeV}^2$$

Low ϵ

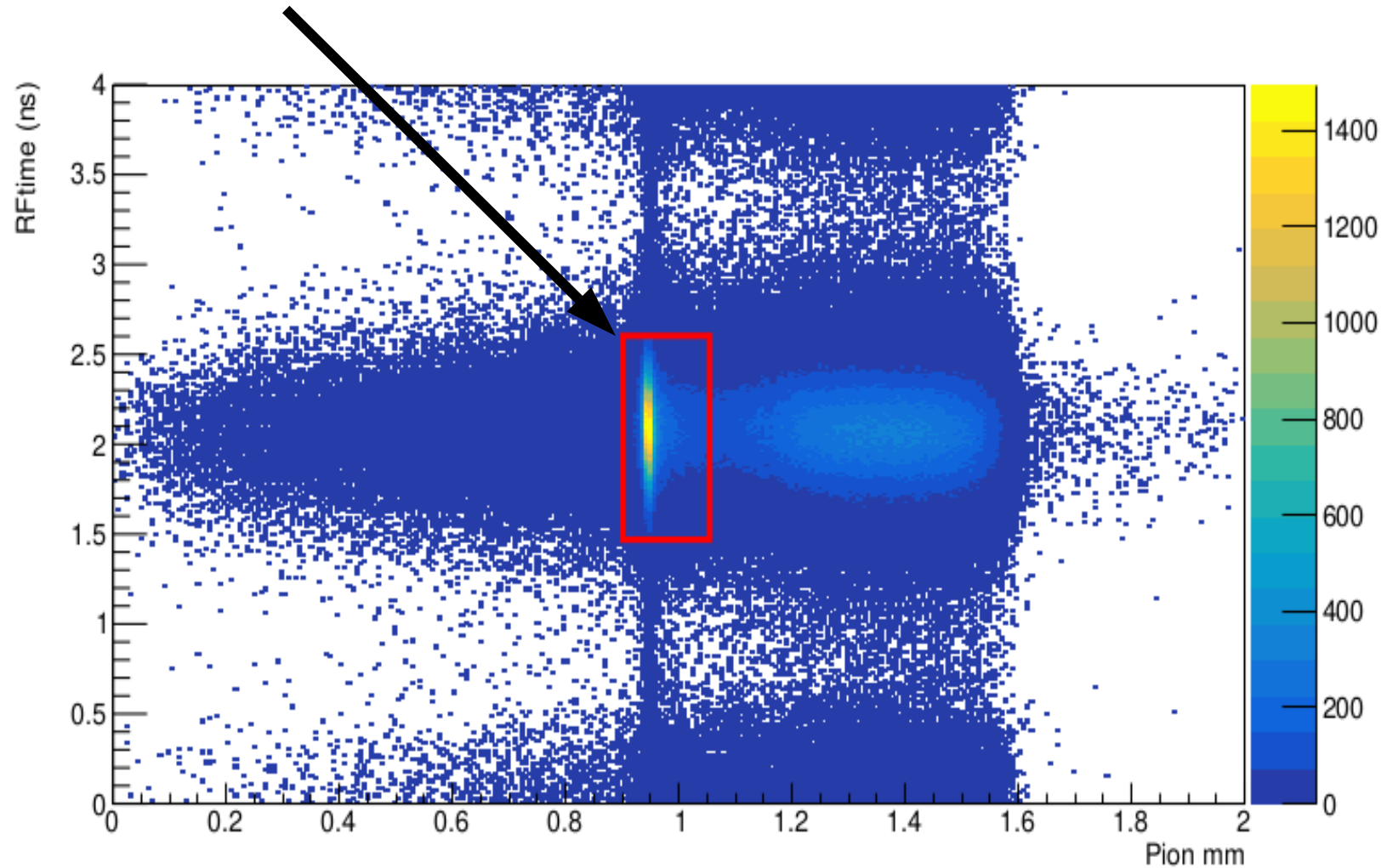
$$W = 3.14 \text{ GeV}$$

$$P_{shms} = 6.053 \text{ GeV}/c$$

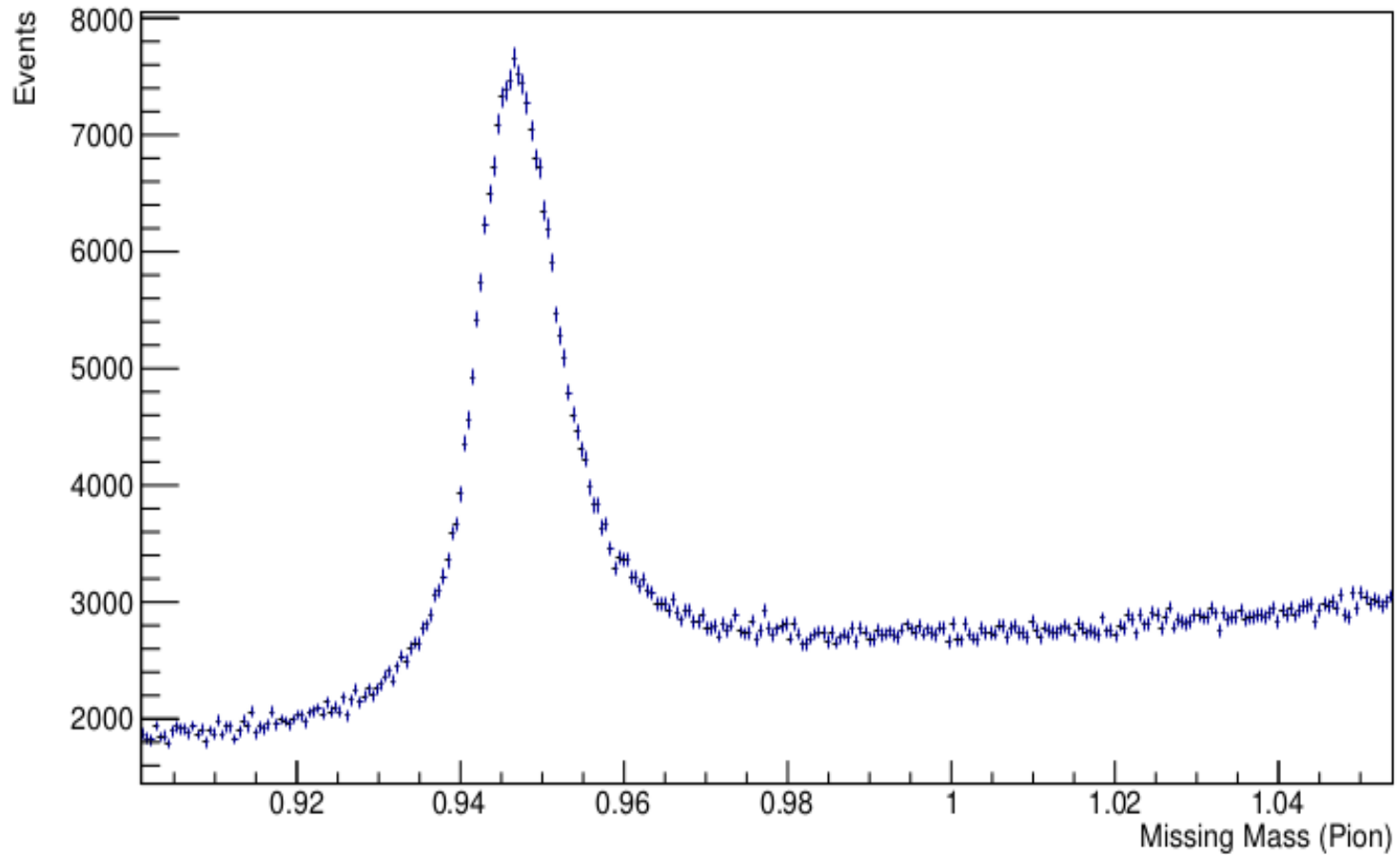
- I have added all the run numbers from this setting.
- The geometrical cuts have been implemented in the PID study to clean up the sample.

Pion Selection

- The preliminary geometrical cuts for the pion selection.

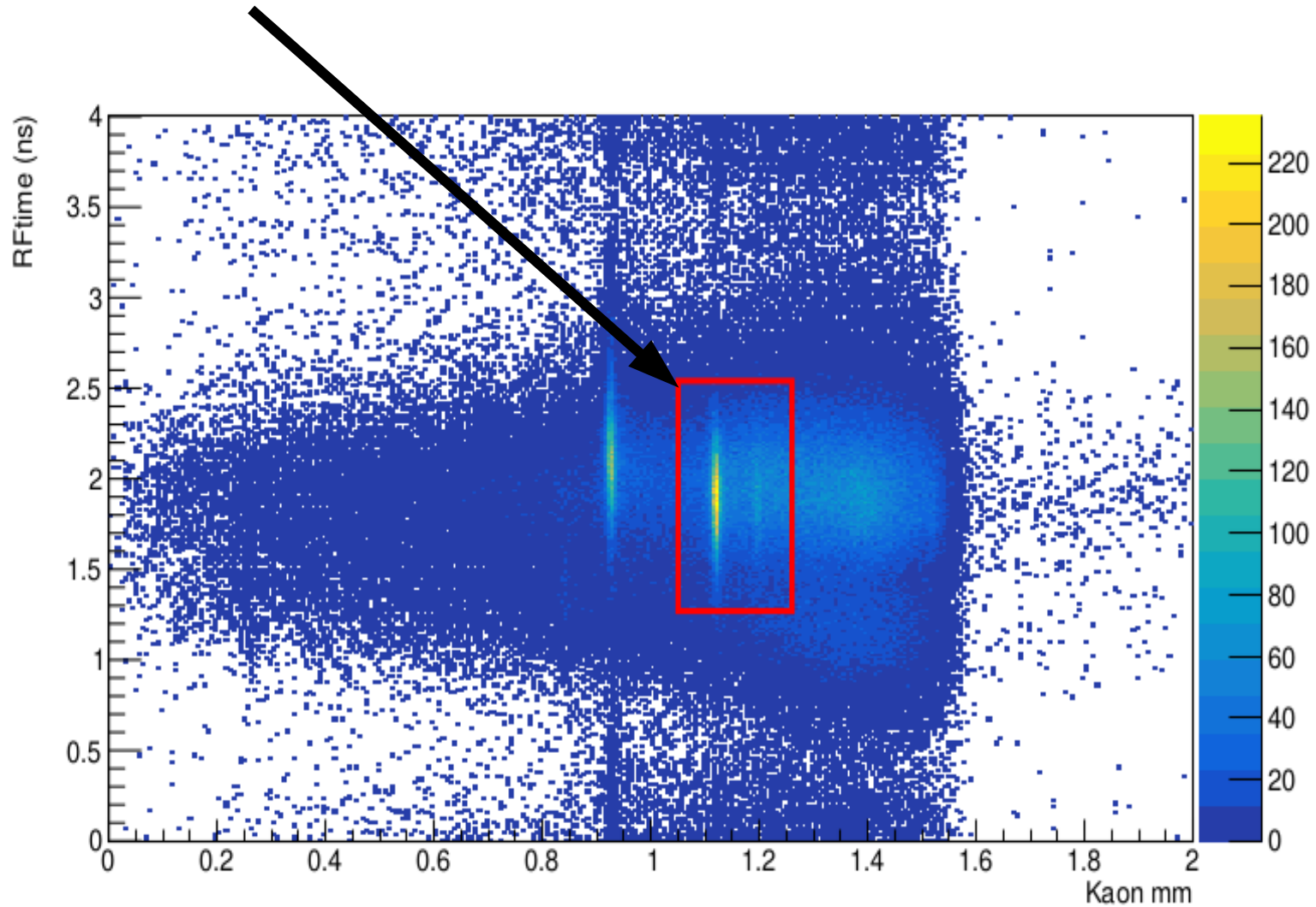


- The pion missing mass after placing the geometrical cuts.

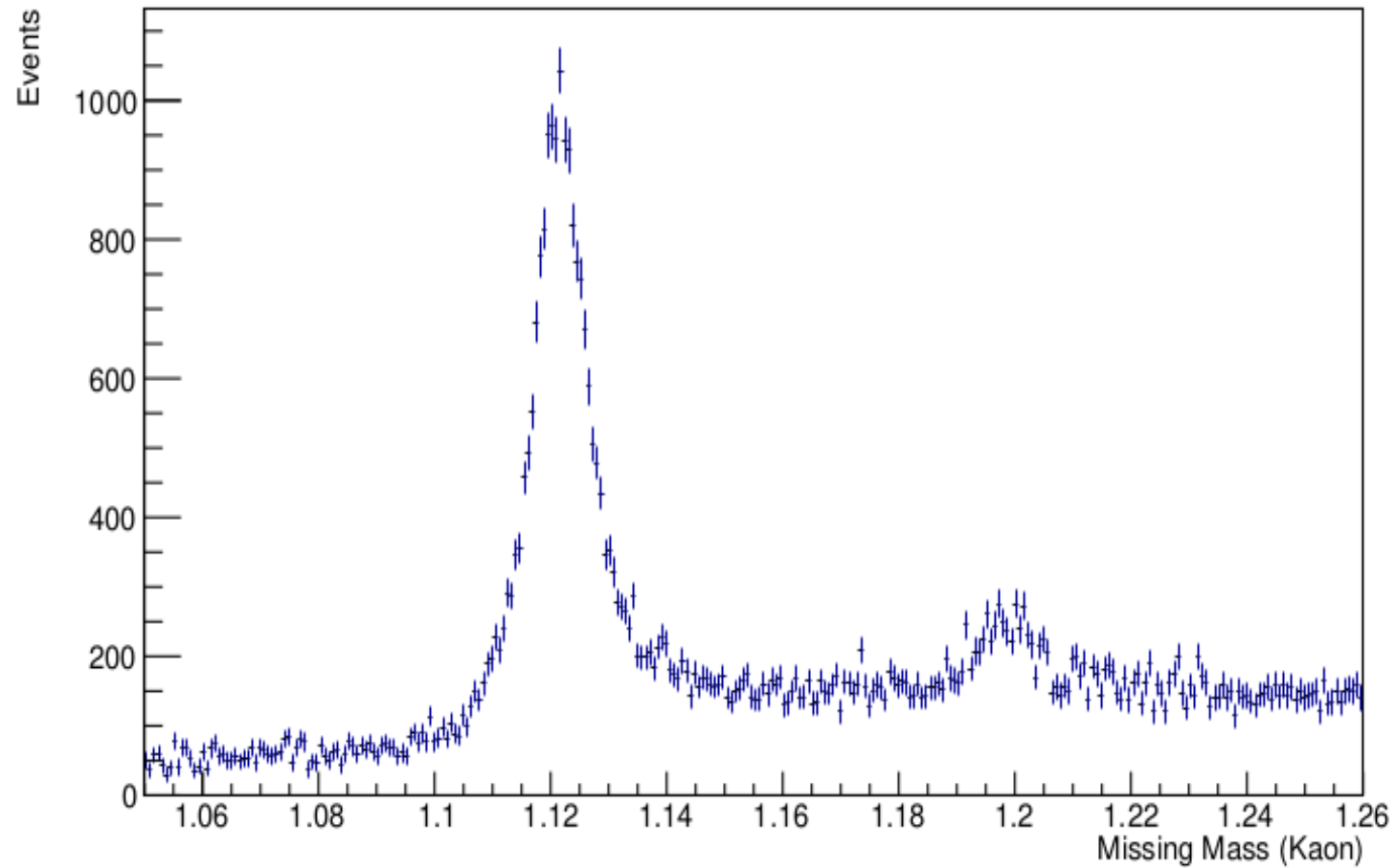


Kaon Selection

- The preliminary geometrical cuts for the kaon selection.

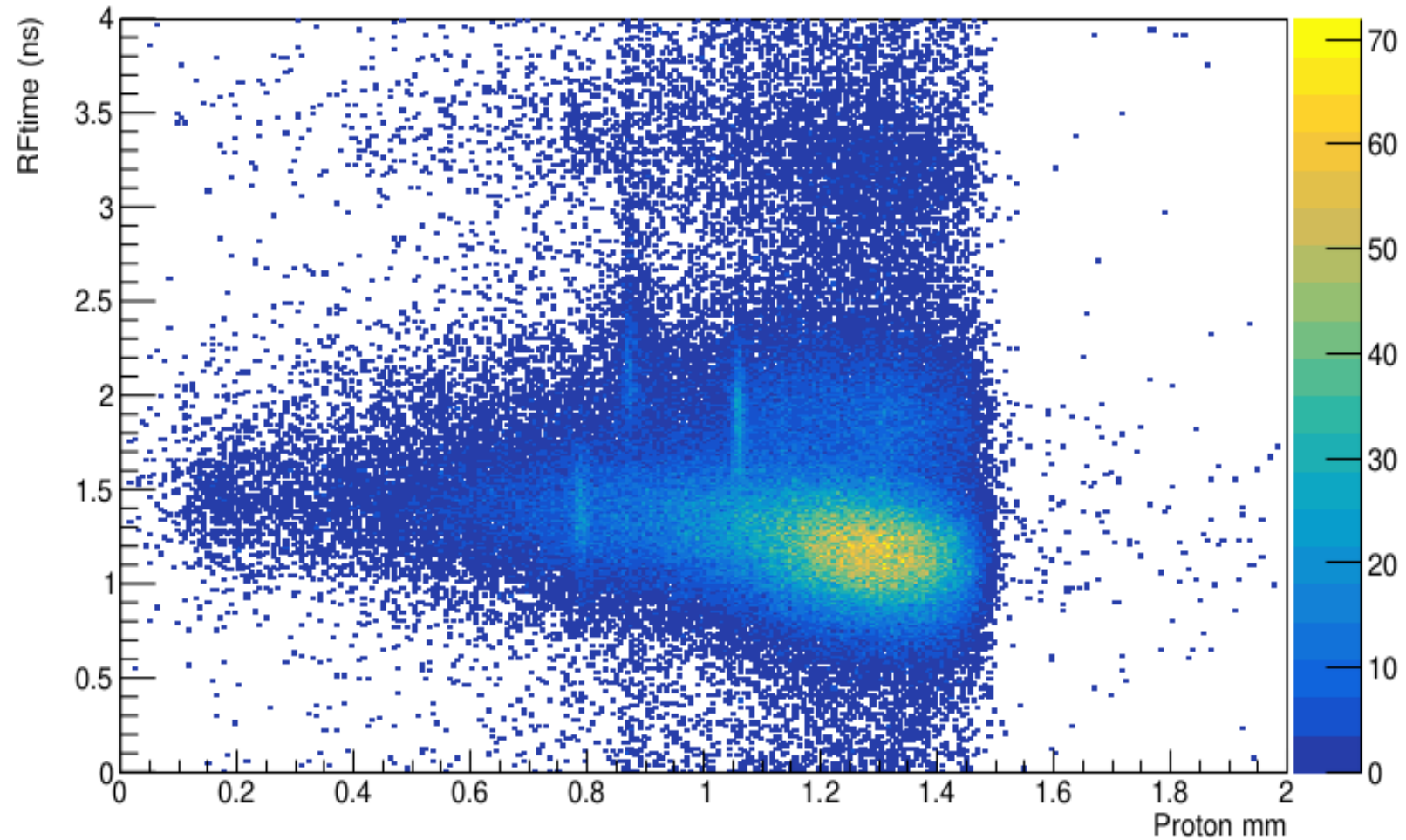


- The kaon missing mass after placing the geometrical cuts.

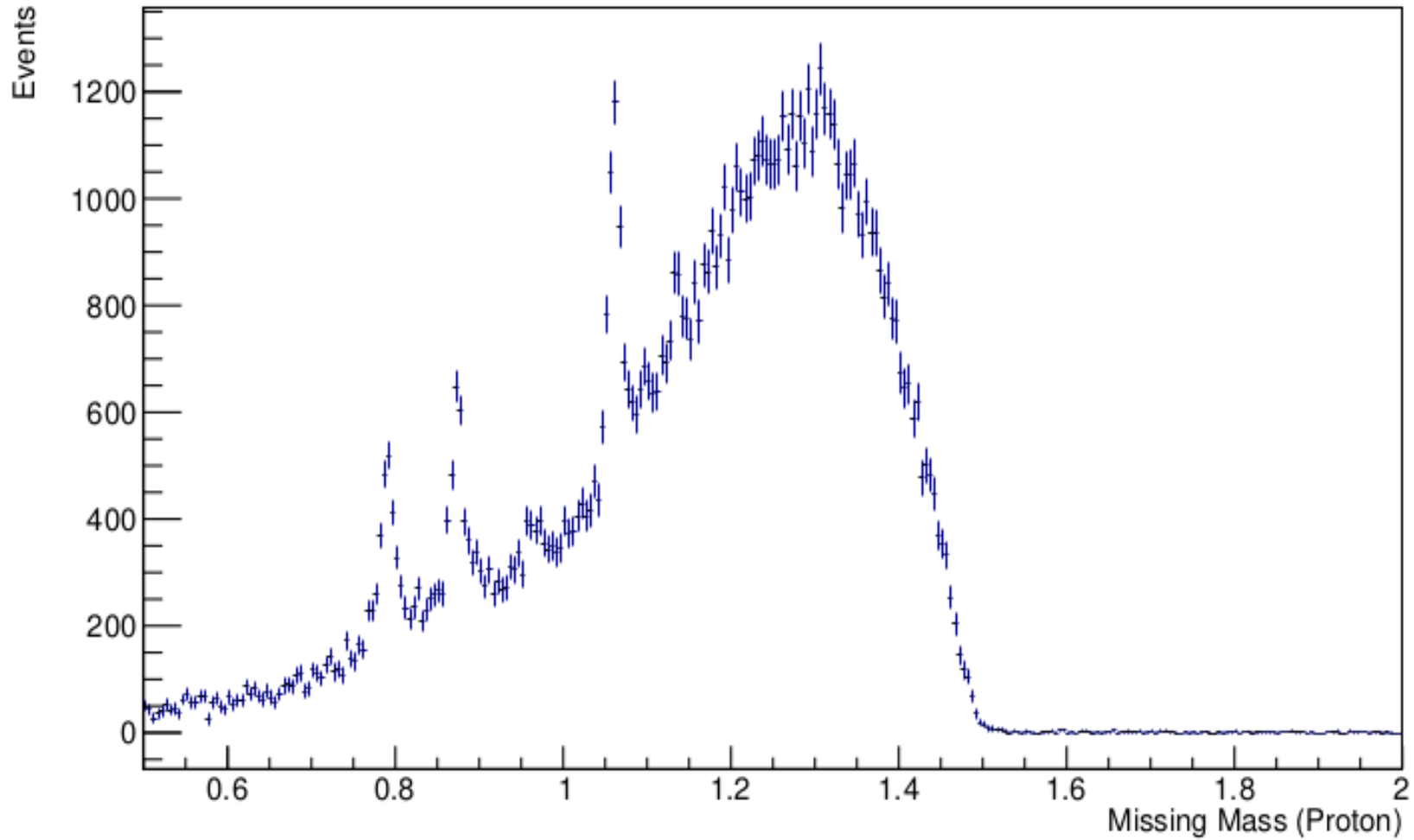


Proton Selection

- In the proton case, I have not finalized the shape of the geometrical cuts.
- Required an extra attention to make the geometrical cuts.



- The proton missing mass **without** placing the geometrical cuts.



Conclusion

- Almost all the cuts that we need in the PID study have been identified.
- I have to organize all the cuts in the pid code.
- The next step is to finalize the efficiency for each particle.