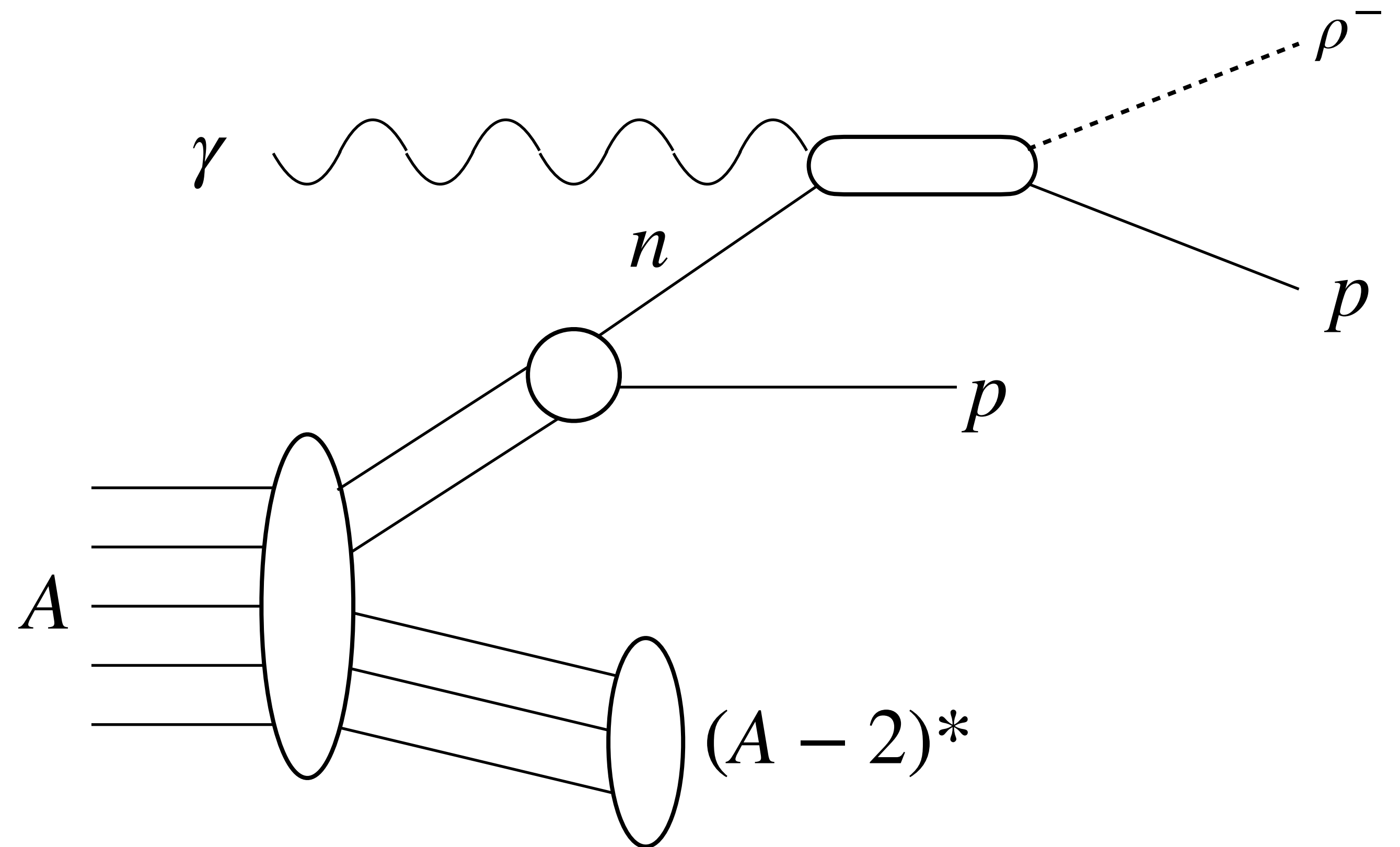


Initial $A(\gamma, \rho^- pp)$ Results

- Requiring 2 positive tracks, 1 negative track, 2 neutral showers
- Kinematics fit on vertex,
 $m_{\gamma\gamma} = m_{\pi^0}$
- Examined in 23% of total ^4He data

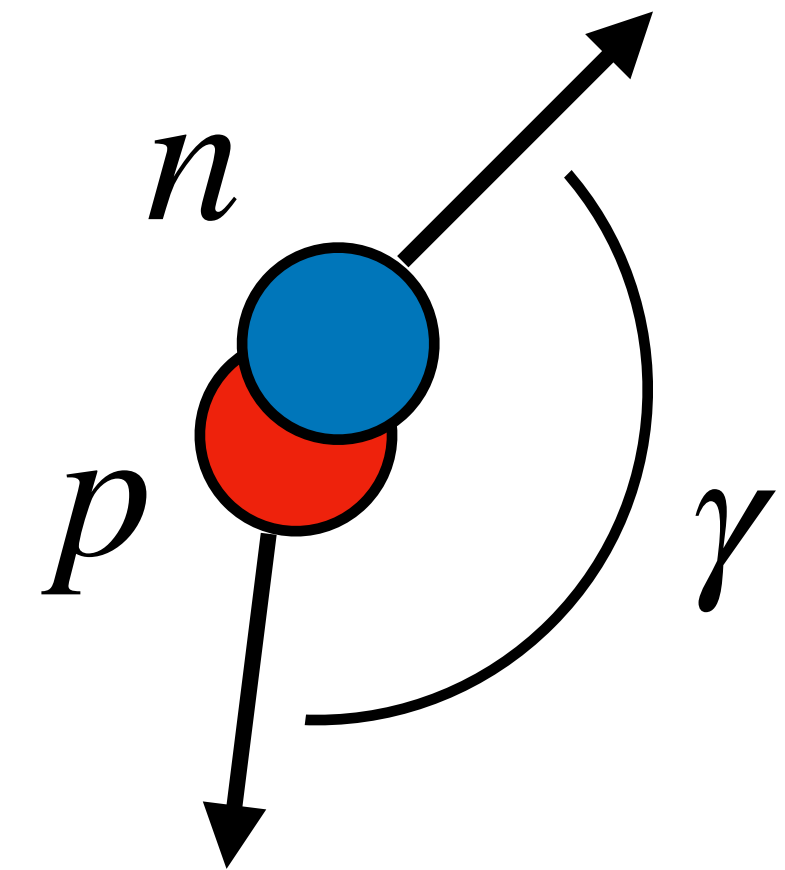


Cuts Applied

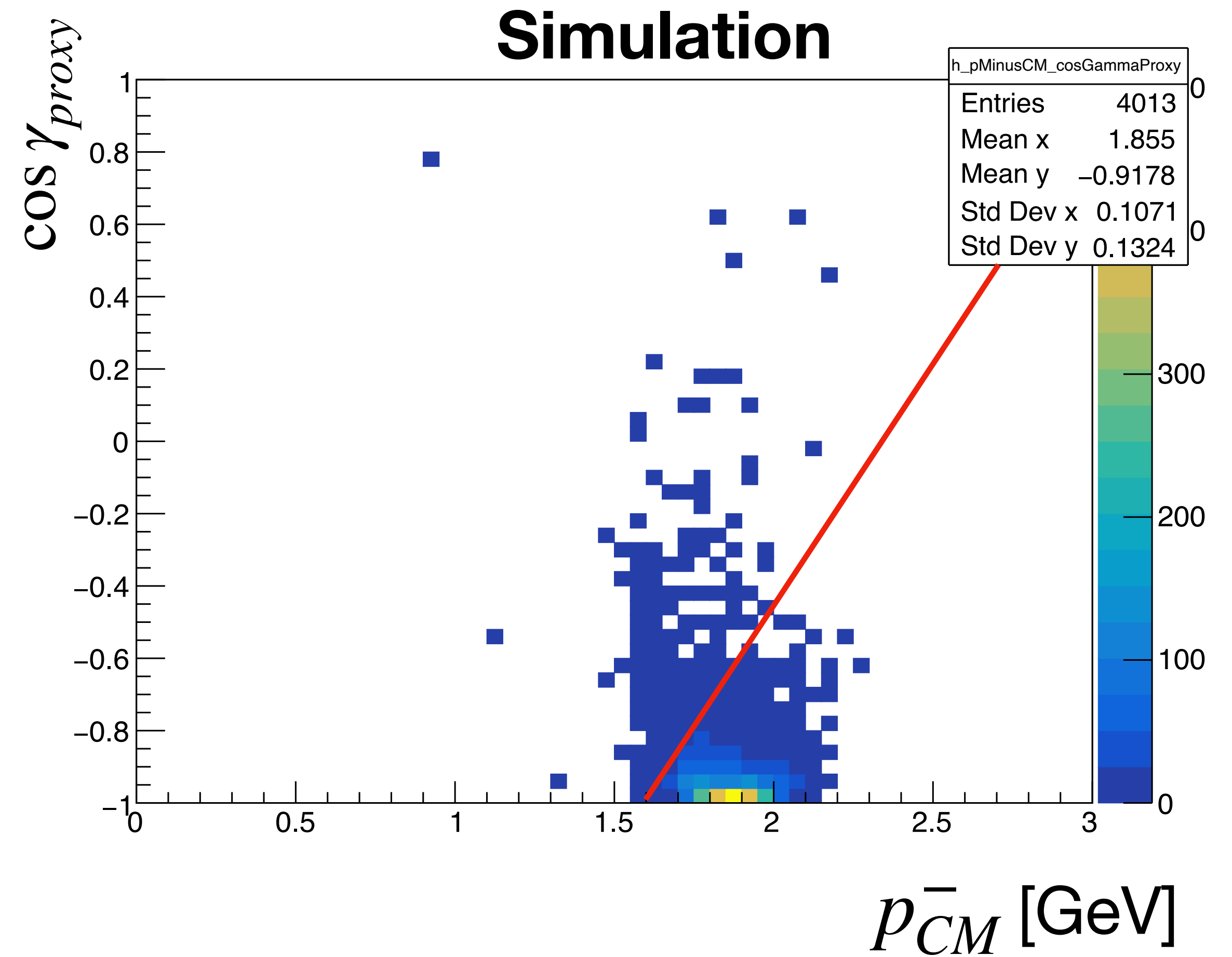
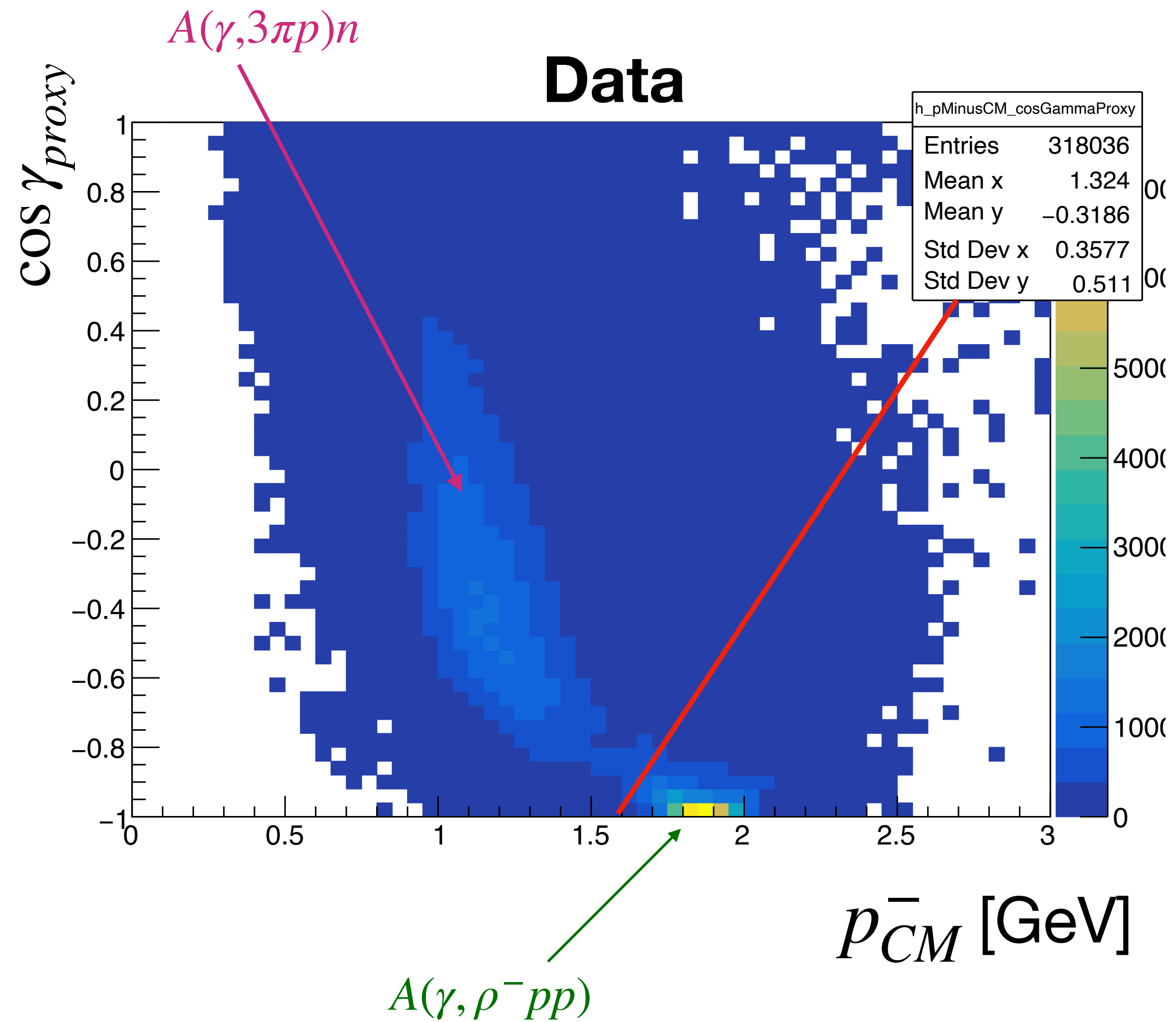
- $CL > 0.0001$
- dE/dx cut for PID
- Vertex cuts
- Calorimeter neutral shower position and timing cuts
- Background cuts for ω events
- $E_{measured} > 7 \text{ GeV}$
- $E_\gamma > 6 \text{ GeV}$
- $|E_{measured} - m_N - E_\gamma| < 1 \text{ GeV}$
- $k_{miss} > 0.4 \text{ GeV}$
- $p_{rec} > 0.3 \text{ GeV}$

SRC identification variables

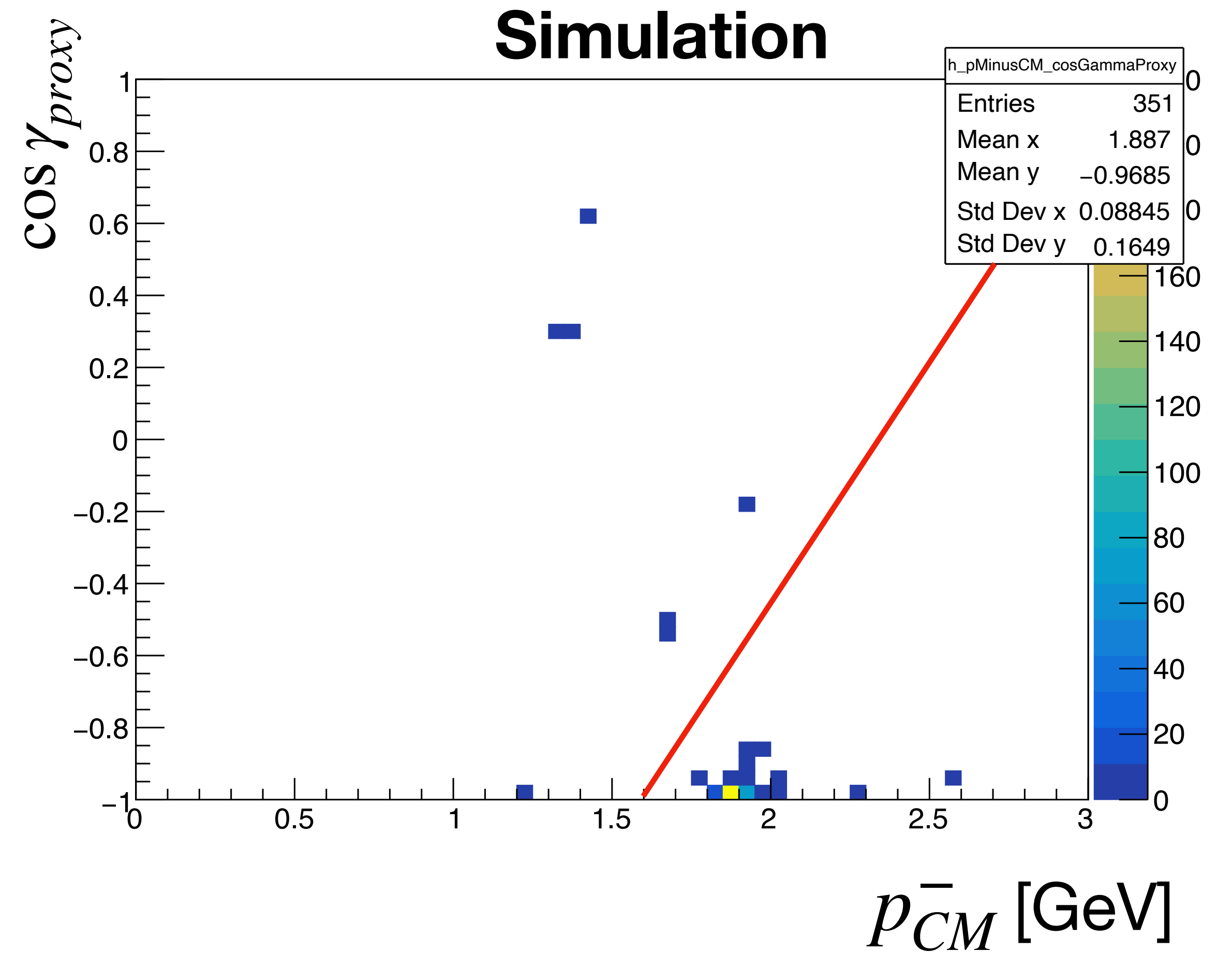
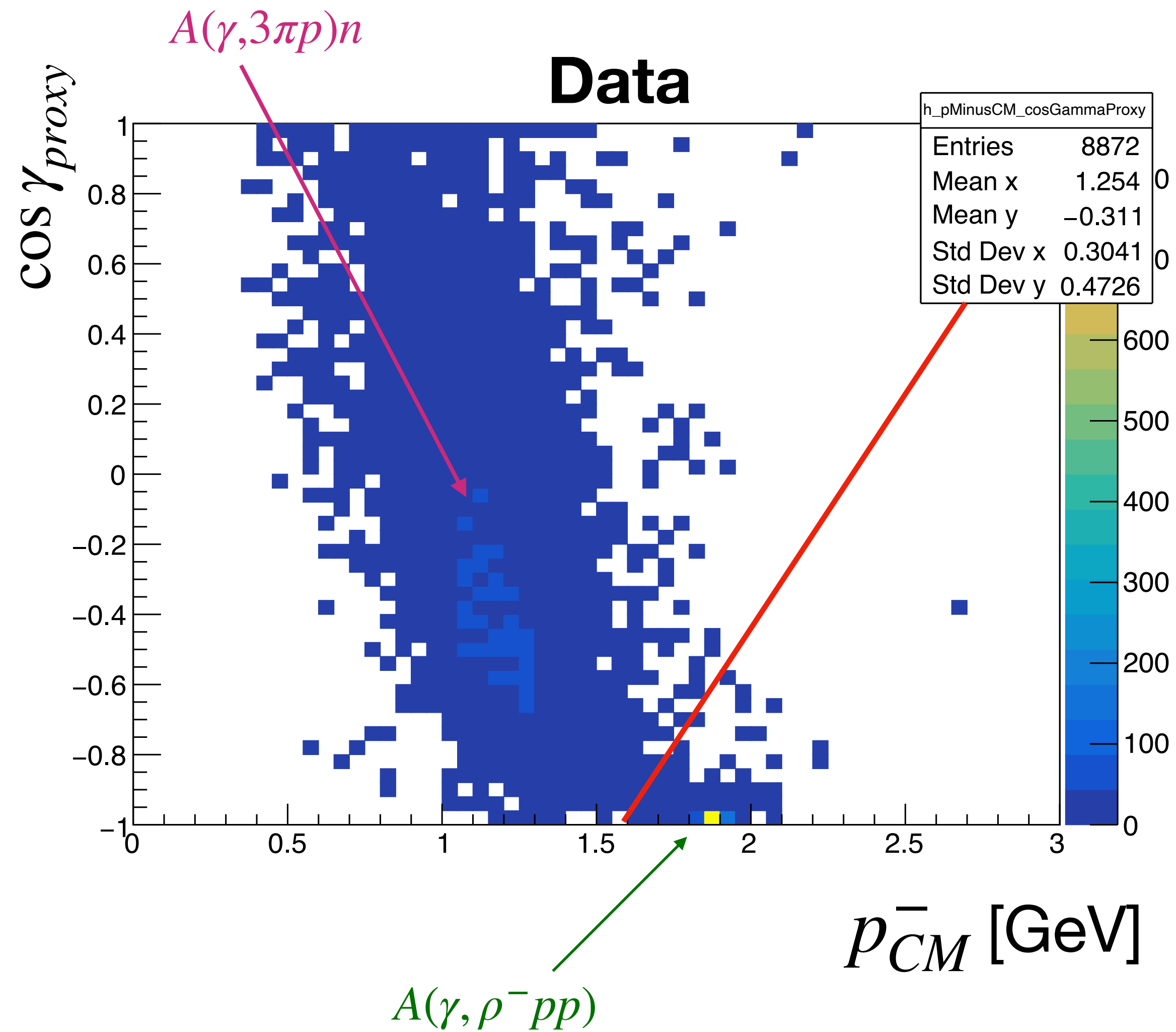
- $\cos \gamma$: cosine of the angle between the initial neutron and the spectator proton
 - For SRCs, $\cos \gamma \approx -1$
- $p_{CM}^- = p_{\rho}^- + p_p^- + p_s^-$: “minus” momentum of the reconstructed pair
 - For SRCs, $p_{CM}^- \approx 2m_N$



Separation between signal and background



Signal more contained in deuterium



ρ^- resonance peak prominent even after cuts

