

Using Rho Candidates

Additional Cuts:

1) PID CUT:

Protons: $dE/dX > \exp(-4.0 * |p| + 2.25) + 1.0$ $|p| < 10$ GeV where $|p|$ is the magnitude of the momentum.

$$\text{abs(BCAL -RF) } \Delta t < 1 \text{ ns}$$

$$\text{abs(TOF-RF) } \Delta t < 0.5 \text{ ns}$$

PiPlus: $dE/dX > \exp(-7.0 * |p| + 3) + 2.5$

$$\text{abs(BCAL -RF) } \Delta t < 1 \text{ ns}$$

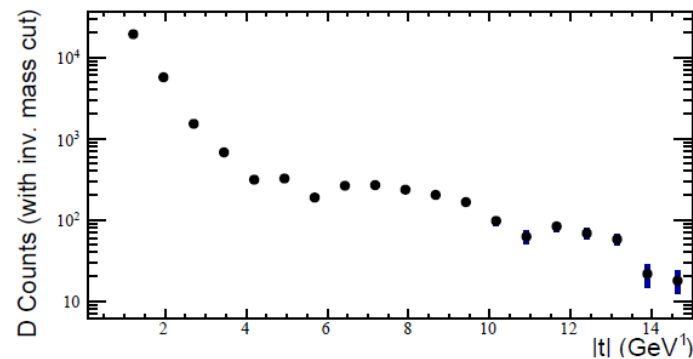
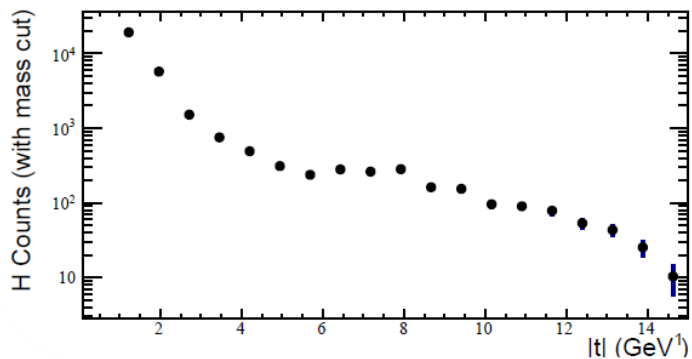
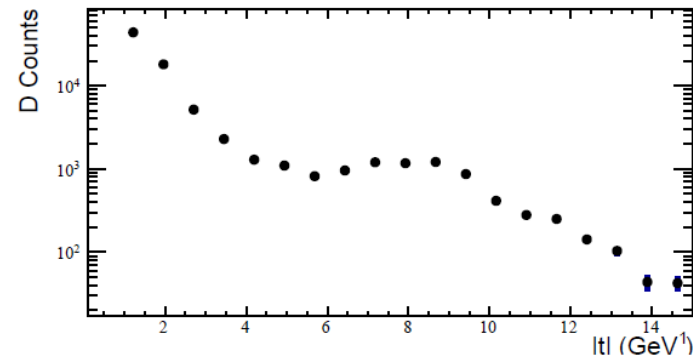
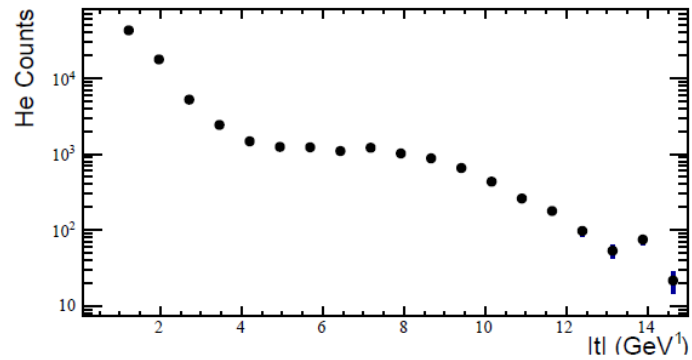
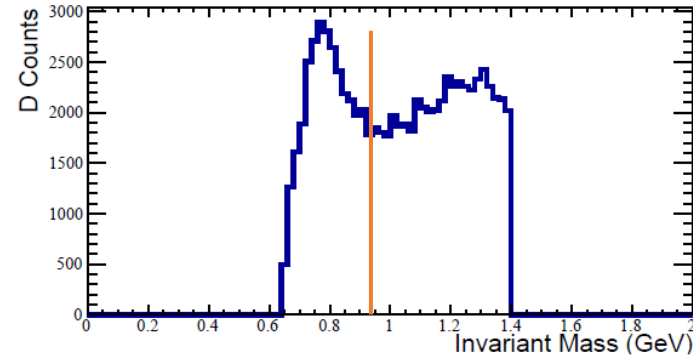
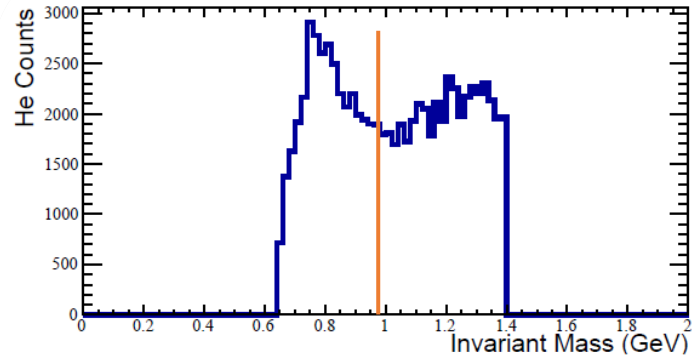
$$\text{abs(TOF-RF) } \Delta t < 0.5 \text{ ns}$$

2) Vertex Cuts: $51 \text{ cm} < Z \text{ vertex} < 79 \text{ cm}$

3) $|u| > 1 \text{ GeV}^2$ and $|t| > 1 \text{ GeV}^2$

4) Use of all production run of Deuterium and equivalent numbers for Helium (31 good runs)

Invariant Mass and $|t|$ distribution plots



0.62 < mass_rho < 0.92)

Ratio of Accidental subtraction |t| distribution

