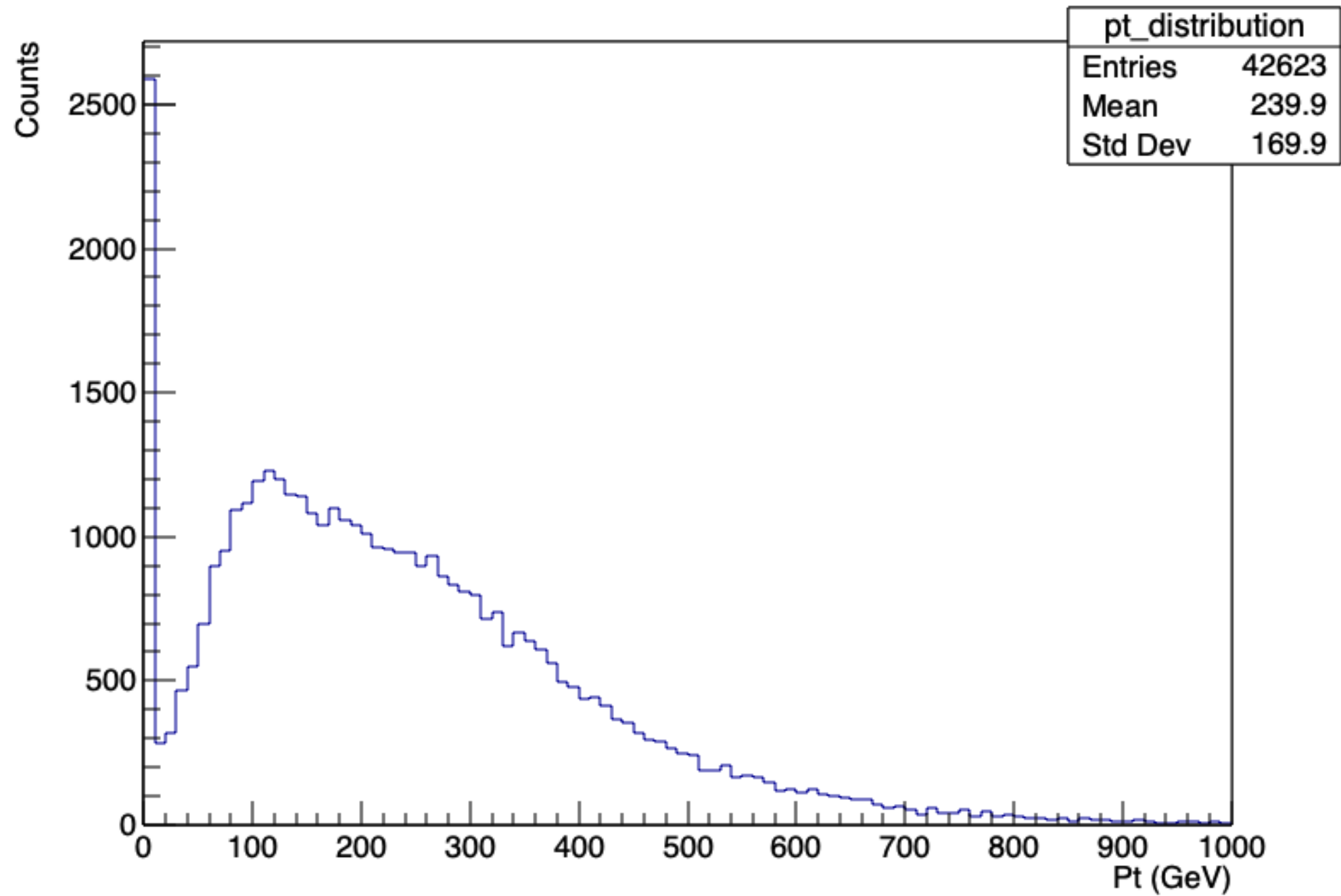


Pt plots and decay chain

**All final status muons,
“final” means they have status of 1**

Final Muons Pt Distribution



**“signal” means they are “final” status
and produced by a smuon decay**

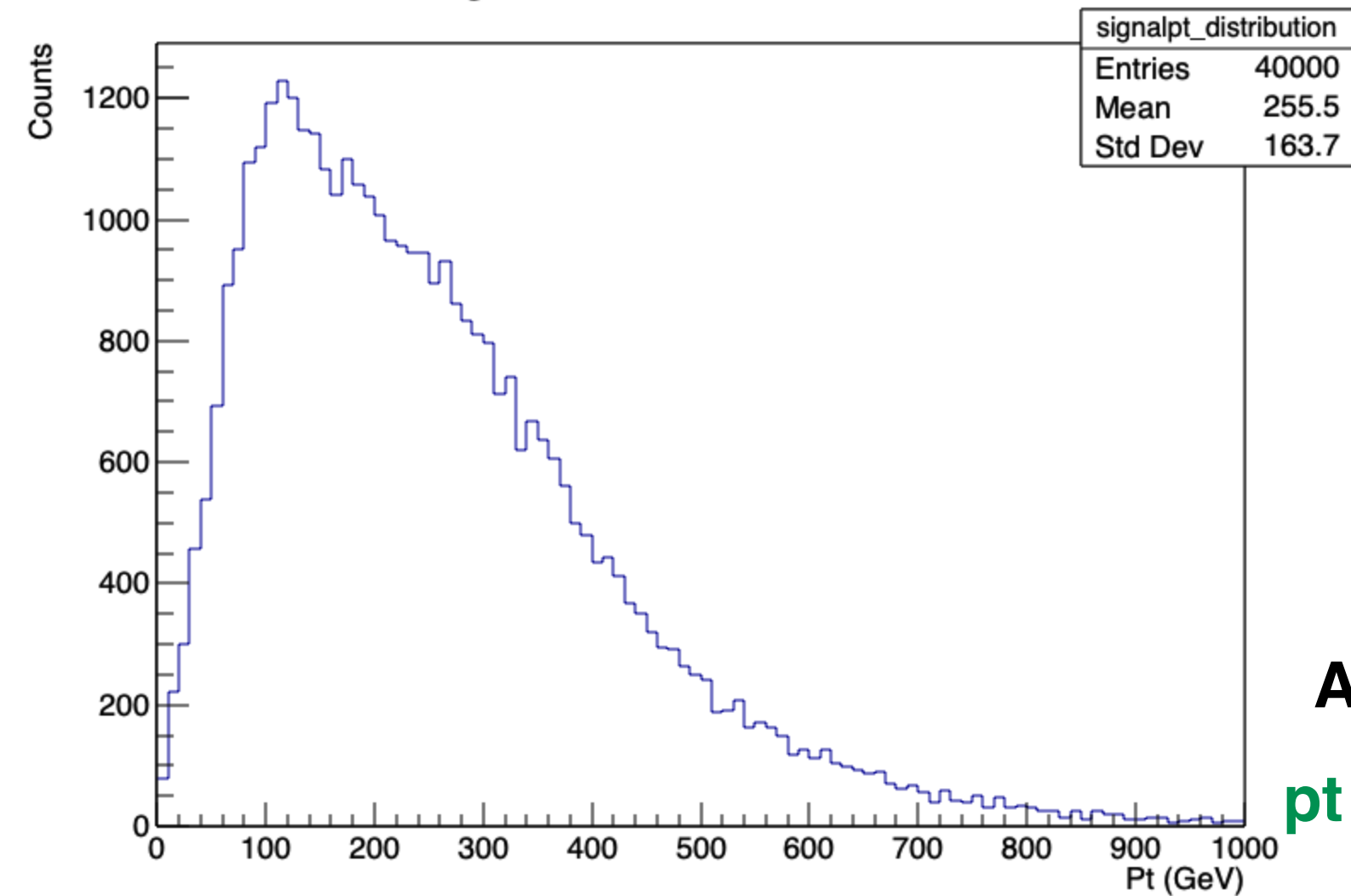


Diagram illustrating particle tracks and their energies in a detector. The tracks are labeled with particle types and energies in GeV:

- γ 0.16 GeV
- π^+ 2.2 GeV
- π^- 1.1 GeV
- D^0 25 GeV
- π^+ 1.4 GeV
- $\nu(\mu)$ 1.9 GeV
- $\rho(770)^-$ 10 GeV
- μ^+ 12 GeV
- γ 0.22 GeV
- π^0 6.1 GeV
- π^- 4.3 GeV
- γ 4.4 GeV
- γ 1.8 GeV
- K^- 6.4 GeV
- K^+ 4.9 GeV

A single (anti) muon, not a pair
pt ~ 1 GeV, total energy ~12 GeV

No peak at zero GeV

All unexpected particles come from photon interactions

Details here:

<https://tiny.utk.edu/decayprodcuts>

An event with photon, emitted by a muon coming from a smuon decay, the photon itself pair-produce $e^- e^+$

